

There is no one story mentioning the Island of the Castle, but there are several completely different tales which have strayed into the geographers' account of South-East Asia. Usually the castle is connected with evil happenings such as illness and disease, but the first story from the *Mukhtaṣar al-'ajā'ib* shows a castle of good omen. The most common story seems to be that connected with the Alexander Romance. There is no evidence that any of these tales particularly belong to the Malay Archipelago. They seem to be merely legends connected with the Outer Ocean, sunrise or something which has led a particular author to include them in his narrative.

## PART TWO

## THE ARAB NAVIGATIONAL TREATISES

(15th and 16th centuries)

## INTRODUCTION

I have earlier mentioned the works of the two *mu'allims*, Aḥmad ibn Mājid and Sulaimān al-Mahrī. These consist of a series of navigational treatises which have survived in two manuscripts preserved in the Bibliothèque Nationale (Ms. Arabe 2292 and Ms. Arabe 2559), in a manuscript in the Library of the Oriental Institute of Leningrad (no. B 992) and in a manuscript kept in the Zāḥirīya Library in Damascus. In addition there exist manuscripts of the Turkish works of Sidi Ali Çelebi, an Ottoman admiral who sailed in the Arabian and Red Seas slightly later than Sulaimān. A considerable amount of work has been done on these texts. The Paris manuscripts are available in photolithograph in Ferrand's *Instructions nautiques et routiers arabes*, tomes 1 and 2, and Shumovsky's *Tri neizvestnie lotzii* gives photographs of the Leningrad poems. An up to date summary of the research done can be seen in the introduction to my *Arab navigation in the Indian Ocean*.<sup>1</sup>

With the exception of Ibn Baṭṭūta, these texts are the only first-hand Arab accounts of South-East Asia that exist after A.D. 1000 and in addition they are accounts of Arab sailors themselves and not scholarly compilations of the courts and schools of the Middle East. Thus their conception of South-East Asia, as may be expected, is far more perfect than any of the earlier accounts. There is no doubt that the material of these two sailor-authors is considerably earlier than the manuscripts which have survived. Ibn Mājid's sources go back at least to the twelfth century, which is contemporary with Yāqūt's first mention of Silān and Jāwa, so his ideas must be surrounded by nearly three hundred years of development and exploration. The work of Sulaimān al-Mahrī, only sixty years later has much more to offer us; but perhaps this is due to Sulaimān's more workmanlike approach to the subject. Sidi Çelebi, the Turk who produced similar work in the sixteenth century, was purely a translator: his works are more or less word for word translations of Sulaimān al-Mahrī and he has nothing useful to add to Sulaimān at all.

As I said in the introduction, the navigators' material is divided

<sup>1</sup> Since this was written the Arab texts have been edited in Damascus by Ibrahim Khoury (see Bibliography). He has discovered other manuscripts with slight variations and has collated them. This work was completed before Khoury's edition was seen, but its effect on the South-East Asian topography is negligible.

into three types of narrative. The first type consists of lists of latitudes of places with their compass bearings from each other. These are virtually directions for the compilation of a chart, although there is no direct evidence from these texts that the navigators possessed charts. These particular lists and the way they were compiled may actually prove that charts were unnecessary to the Arab sailors, and these lists sufficient for their purposes. Arab charts are only mentioned in European sources. In these lists, references are given to both compass bearings from one place to the next and latitudes are given with references to the height of certain northern stars above the horizon. The stars used are normally the Pole Star (الجماد), the Guardians of the Pole (الفرقدان,  $\beta$  and  $\gamma$  *Ursae Minoris*) and the Great Bear (النعش, according to De Saussure,  $\beta\delta\epsilon\zeta$  *Ursae Majoris*). The *Mal'aqiya* (Leningrad) poem also uses Canopus and  $\alpha\beta$  Centauri for this purpose. Ibn Mājid used many stars but these are the only ones which concern us here. My work on Arab navigation gives about sixty different star measurements used by him. The Arab measurements are never correct and only give a vague indication of the latitude of the place. The unit of measurement is an *işba'* which is approximately  $1^\circ 43'$ .<sup>2</sup> It is important to note that, in the translation, I have used the degree sign for the Arab *işba'* and not for European degrees. I have usually abbreviated Pole Star to P.S., Ursa Minor or the Little Bear to L.B., and the Great Bear to G.B.

For bearings, the Arabs used a compass rose of thirty-two rhumbs occasionally using a sixty-fourth division each side of the east and west points. These can be easily equated with the European rose.

The second type of narrative is that giving sailing directions for a particular route, mentioning depths (in *bā'*—fathoms) and other information needed for the successful completion of the journey, such as the nature of the coast-line, sea bottom, currents and tides etc. Occasionally more information is given about the people met or the products of the country. The third type is a straightforward list of place-names having the same latitude right across the Indian Ocean. In this case I have extracted only those names which concern South-East Asia.

These narratives can most easily be seen in the prose works of Sulaimān al-Mahri. Here I have quoted passages from the two

<sup>2</sup> There are 210 *işba'* in a complete circle and 8 *zām* to one *işba'* according to the more accurate figures of Sulaimān al-Mahri and this made an *işba'* equivalent to  $1^\circ 43'$ . Ibn Mājid would have 224 in  $360^\circ$ , but this was to have a figure into which both 7 and 8 would divide. This latter figure is convenient if a smaller figure is needed and Ferrand and Van der Lith have produced a value of  $1^\circ 36'$  for this. For more discussion see my *Arab navigation*, pp. 313–15.

longest of his works, the *'Umda* and the *Minhaj* and from these alone, the best summary of the average navigator's knowledge of South-East Asia can be obtained. The *'Umda*, the earliest work, has a very good plan which Sulaimān follows without too much deviation. This plan is roughly (a) navigational theory, (b) results derived from applying the theory, (c) a series of practical routes which obviously depend on those results. Section (a) does not concern us when we deal specifically with South-East Asia.

The sections "on the latitudes" (ff. 35–6) however belong to the results portion of the text (section (b)) and give the results of latitude evaluations at certain fixed points. The section in the *Minhaj* on ff. 66–72 is a similar but more concise table of latitude results. The results of certain fixed bearings are given in the section "on the sea-routes" of the coasts and in the descriptions of islands (ff. 21–9). It is these sections which are so useful for us because by joining up the fixed latitudes with rhumb-lines given we can obtain the sort of chart seen in fig. 6 which immediately shows us which parts of the coast were familiar to the navigators and which were obscure. The end of the *'Umda* is taken up with the third section (c), the "set voyages" or sailing directions from one port to another. This was obviously the most useful part of the work for a practical navigator and may be most interesting for the modern reader for it can be compared easily with European routiers of the same period. Topographically however, this section is not the most profitable.

The *Minhaj* was Sulaimān's later attempt to bring the *'Umda* up-to-date, correcting errors and adding omissions. However the clear plan of the *'Umda* has been lost and as a work the *Minhaj* is not so satisfactory. It does produce the long list of latitudes mentioned above, but the corrections found mainly in the extreme northern latitudes hardly affect the conception of South-East Asia. The other parts which concern South-East Asia are almost the same as those in the *'Umda*. The long section on set voyages given in the *'Umda* is not repeated in the *Minhaj*, only a few examples of such sailing directions being given. Fortunately for those interested in South-East Asia two important new routes are given which do not appear in the former work. These are the voyages to Fanşūr down the west coast of Sumatra, and the routes from Ceylon direct to Marṭabān and Tenasserim.

Ibn Mājid is more difficult to use because his texts do not state things in a clear and logical manner like those of Sulaimān. In general Ibn Mājid's knowledge of the Archipelago is the same as that of Sulaimān. As he lived fifty years earlier one might expect less information from him, but in places, especially in the extreme

south-east, he has far more detail than his successor. His clearest text is the *Fawā'id* which is in prose, but only contains, as far as South-East Asia is concerned, a list of latitudes and a short account of the three main islands of Sumatra, Java and al-Ghūr. Nevertheless his list of latitudes is not a plain straightforward list like that of Sulaimān, for it breaks off without hesitation into any topic that the author feels to be relevant. Thus we find quite a few sailing directions mixed up here and there, especially those dealing with the Straits of Malacca, although they are not as clear as those of Sulaimān.

The other texts the *Hāwīya* and the *Mal'aqīya* being written in poetry are often obscure, the *Hāwīya* being particularly so with many inaccuracies in the manuscript. Although there are several versions of this poem in existence they vary considerably and do little to elucidate each other. The *Hāwīya* gives information on South-East Asia only in a very incomplete list of latitudes and in a description of the route from Ceylon to Malacca and hence on to China and Java. There is also a curious anticlockwise arrangement of bearings given from the island of Karīmū (Karimunjawa).

In the first part of this route Ibn Mājid differs from Sulaimān in sailing from the Mergui islands to Sumatra and then across to Malacca via the islands of Berhala and Jumar. Sulaimān sails straight down the coast of the mainland past Penang to Pulau Sanbīlan, out to Pulau Jumar and then back from there towards the mainland to Malacca. This movement away from the coast and back again is to avoid the dangerous shoals in the narrow part of the Straits. They therefore cross the shoals at right angles in a similar place to the early European ships, although both authors state that there is a route through the shoals keeping parallel to the mainland all the time. Ibn Mājid's directions here are not clearly given and must have been used purely for mnemonic purposes. It seems impossible that a captain could sail a ship by these meagre bearings without having previous knowledge. His bearings are not always the same as those of Sulaimān; the latter's are generally more accurate.

The *Mal'aqīya* gives only a route from Sumatra to Malacca. This text seems to omit Pulau Jumar altogether sailing directly from Pulau Sanbīlan into the shallows. This text is more explicit than the *Hāwīya* although the directions are again wrapped up in Ibn Mājid's so-called poetical style making a precis of the text more acceptable than a direct translation. The lucidity of Ibn Mājid's works depends to a great extent on the date when they were written. The *Hāwīya*, written in 1462 was a comparatively early work. The *Fawā'id*, written around 1488 is an achievement of the end of his

life and virtually a summary of his other works. The *Mal'aqīya* is not dated but must be fairly late although perhaps earlier than the *Fawā'id*; its style shows far more certainty in describing the Malacca route than does that of the *Hāwīya*.

Occasionally Ibn Mājid's bearings or latitudes appear to be more accurate than those of Sulaimān, when the two have different values. His estimate that Cape Kanbūsā is south-east of Shahr-i Naw is much better than Sulaimān's SE. by E. In this area, Ibn Mājid mentions the bearing from Indo-China to Borneo (Brunei): Sulaimān seems to have reached Brunei only from the Moluccas and Maqāsar (Celebes). On reaching China, Ibn Mājid's route ends at Zaitūn, and he then gives a series of ports in China all ending with the element *-iūn*. On the other hand Sulaimān ends up at Bāb-i Šīn, the Gate of China, which is a term properly belonging to the early classical texts and which is presumably the Canton river. Finally Ibn Mājid's detailed route to Java through the islands off the east coast of Sumatra is not given by Sulaimān at all.

## I. THE TEXTS

[Note: ° stands for *isba'*; P.S., Pole Star (al-Jāh);  
L.B., Little Bear (al-Farqadān); G.B., Great Bear (al-Na'ṣh).]

## I. SHIHĀB AL-DĪN AḤMAD IBN MĀJID

from *Ḥāwīyat al-Ikhtisār fī 'Ilm al-Bihār*, Ms. 2292

f. 103r., l. 3–f. 106r., l. 19

The bearing from Negrais (Najirāshī) to Buttum is well-known and is SE. From Negrais the bearing is SE. by E.<sup>1</sup> to the island of Fālī and ESE. to Martābān. Now the land here is concave on this side of the Siamese mainland so that between Najirāshī and Martābān there is a bay with little depth, so you must beware if you bear E. by S. unless you are aiming for Cosmin (Kusumi)<sup>2</sup> or Pegu. So do not depart from the ESE. passage when aiming for Martābān. Then from here to Bataqālah<sup>3</sup> it is due south. From Pulau Tawāhī to Buttum a safe course is SSE. The same applies from Buttum to the islands of Tākwā which are numerous, with no shoals, but Tākwā bārī (the strait of Tākwā) is due south from Buttum. Then from the islands of Pulau Sanbilan navigate SE. to Qafāshī but beware from Dingding and Pulau Sanbilan which are 1 *isba'* apart.<sup>4</sup> Do not deviate from the route here.

The route to [the islands of] Jūmūr<sup>5</sup> and Berhala is SSW. Sumatra (Samudra) when sailing from Tākwā should be S. by W. [103v.] I have tried this many times although others say that the bearing is due south.

If you wish to set out from Sumatra for China, then set course SE. by E. for Berhala and also for Jūmūr and when you have passed

<sup>1</sup> I.e. the direction the man would take to reach Somaliland—presumably from Aden. The bearing is obviously that between the previous one and the next, i.e. SE. by E. Aden to Ra's Khazira is SE. by E.

<sup>2</sup> The text has Kashmir and this and not Kasmīn rhymes with the end of the line. Kasmā as in Sulaimān's text is the Burmese port near Bassein and this is obviously meant here. For Kusumi see p. 234.

<sup>3</sup> *al-bangālah* i.e. Bengal; but not the usual spelling, and certainly not in the right direction. It should be the same as Bāshkalā, an epithet for Buttum in Sulaimān's texts. A better direction from Tawāhī would be SSW. Reading مطلع السهل for مغرب السهل.

<sup>4</sup> This obviously refers to the islands of Pulau Sanbilan Malacca south of Penang, thus omitting the stretch of coast between the two Pulau Sanbilans because of the confusion of their names.

<sup>5</sup> The text has Johore جوره but جومر Jumar is obviously meant here. SSW. is probably the direction from P. Sanbilan Malacca although SSE. could imply beginning again from P. Sanbilan Siam.

them bear ESE. to Malacca and the depth should be 10 fathoms. Before you get to Malacca you will meet Fal Fāsālār<sup>6</sup> and Qafāshī. Fal Fāsālār is a mountain and Qafāshī consists of large number of shoals in which you will find channels. When you see Fal Fāsālār ENE., then give thanks.

When you set out from the land of Malacca, then set course ESE. as far as Singapūr. Then travel as far as Tinggi bearing NNE. and from Tinggi steer NNW. as far as Šūrā. Due north from Šūrā brings one exactly to Shahr-i Naw and from there to Kanbūsā the bearing is south-east. From there bear NNE. to Shanfā (Champa).

If you are travelling on this route you can sometimes meet a vicious wind by which is meant the Shillī wind and when the wind bears ENE. it is an annihilating tempest.<sup>7</sup>

Between the bearings to Šūrā and Kanbūsā, i.e. SSE. of Shahr-i Naw, is a cape in the sea Baḥr Barnī (lit. the sea of Borneo/Brunei). Hence you reach it SSE. from Shahr-i Naw and also S. by E. or even south.<sup>8</sup> For it is a large [island] to the south. Its northern cape is in the face of the water at 5 *isba'* (P.S.) and from Shahr-i Naw (probably Kanbūsā) it is due east for both of them and at 5 *isba'* P.S. This is similar to Timor which are islands south of Java.<sup>9</sup>

From Champa the bearing is NE. by E. to the port of China called Zaitūn [whose latitude has been stated to be 20° P.S.]. This is the limit of the kingdom of China.

[The route then turns from Zaitūn]<sup>10</sup> SE. by E.<sup>11</sup> and to the north and west of you lie the dwellings of the Turks. Then Yājūj

<sup>6</sup> Fāl Fāsālār is the Pulau Bāsālār of Sulaimān.

<sup>7</sup> This is the reference to the typhoon that I have mentioned in my *Arab Navigation*, p. 385. The *Shillī* wind is connected by the navigators with the *tūfān*, a word which does not mean—to them—typhoon, but a squall or even a wind varying from the standard monsoon wind. Here the typhoon proper is probably meant. However the text is ambiguous and the bearing need not refer to the wind's direction but to the direction in which the ship will meet the full force of the typhoon, or possibly the direction in which the ship ought to sail to escape from it.

<sup>8</sup> This passage is terribly vague—which is reached from which in the directions named is not at all clear. The cape may be the north-west point of Borneo, or even Cape Cambodia itself. This is certainly the island of Borneo that is mentioned here and the latitude fits that of Sulaimān for the northern point of Borneo. However, one cannot go due east from Shahr-i Naw to the north point of Borneo by ship—only on a chart.

<sup>9</sup> I cannot understand why this should resemble Timor.

<sup>10</sup> The pieces in square brackets are from two hemistiches in the margin. The order however is not clear as all four hemistiches here have the same rhyme. The order I have given appears to make the best sense.

<sup>11</sup> Here the classical Arab conception of the world takes over as Ibn Mājid has reached the limit of the navigators' knowledge.

and Mājūj follow in the uncivilized islands of the north.<sup>12</sup>

If you wish to take a single route from Singapūr go out to sea, to Shahr-i Naw, or to Haitūn, Qaltūn or 'Altūn and after them Zaitūn. The name of the capital of their kingdom is Kanbālik. To the south of these are only dangerous places and al-Ghūr, for beyond that region you meet no real human being worthy of your travels for there are only savages on the edge of the world and all authorities say this and nothing else about them.

*Seventh section on the knowledge of the sea routes<sup>13</sup> of the islands, eastwards, and of the Maharāja, Sumatra, al-Fāl [etc.].*

If you journey from Malacca as far as Jāwa set course SE. (perhaps SW.)<sup>14</sup> until you have left Sabta behind and then turn SE. by E., a clear route as far as Nihāya (Berhala?)<sup>15</sup> but before this you will come across Pisang and Selat Karimā and also Hānū and never have the lead out of your hands near this latter island.<sup>16</sup>

The route is in six fathoms to Selat Zanji, and to Berhala is then fairly straightforward. But be especially careful in Selat Zanji, do not cease to sound the depths. Then incline towards the island. This is the gate of Mūsā Bārī which is well known to most travellers. Selat Zanji is now behind to the east and the island of Biliūn where pure aloeswood is obtained. All of these islands should be left on the left as far as Berhala which is the furthest of them to the right. Bear from these SSE. as far as Bangka<sup>17</sup> and then travel SE. to Tūban or set out<sup>18</sup> SE. for Bangka Kōta and then as before to Jāwa. Bangka Kōta is an inhabited island where people have been civilised for ages. The southern end is 4° L.B. This is Palibang. If you set out from Bangka Kōta for Jāwa and its port bear SE. for 4 zām until it is out of sight. In this place you will see Sunda Bārī which is a strait which enables you to travel through the mainland (Sumatra-Java mainland). You will see three islands in Sunda bārī situated in line NE. by E. and SW. by W. and the route between the [two main islands] is on the same bearing. This clearly describes the area between these

<sup>12</sup> The text has Yājūj twice: it is obvious that Mājūj should be substituted for the second one.

<sup>13</sup> The first ten verses of this section are given in Ferrand's *K'ouen Louen JA.* v. 14, p. 54, n. 1. The text he gives there is from MS. 2559 where the *Hāwiya* is repeated. For an explanation of the route see p. 249; and my *Arab Navigation*, pp. 495-7.

<sup>14</sup> The rhumb *al-aqrab* refers to both SE. and SW. and only when the rising or the setting of the constellation is given is it possible to say exactly which is meant.

<sup>15</sup> Or "as far as the end of the route"; for the explanation of this see p. 250.

<sup>16</sup> The text has to be forced considerably in these two lines reading *فيسلك مع سلت كريمة جزرا* for *في سلك معسل كريمة جزرا*

<sup>17</sup> *بنك* has been read *بنك* here. See p. 251.

<sup>18</sup> This seems to be an alternative route, but the point from which it leaves the previous route is doubtful.

two [main] islands i.e. north of Jāwa and south of Sumatra. Now steer SE. without deviation for Jāwa where the Little Bear is at 2°.

You will meet opposite its harbour a large island the name of which is Tūban. Leave this to your left and enter the harbour of Jāwa. If you wish to reach Jarshik or Surabāya, then these are concealed ports. Concealed also is Lasem.<sup>19</sup> For the capital of their kingdom is Demak a day's journey inland. There is nothing to the south except Timor [and?] Shāshī and Fāsā, many islands reaching as far as a journey of two months to the east and the south. Thus the islands of Timor are many reaching from 11° G.B.-7° G.B. and there is no port among them or to the south of them whose name is important. But they tell in the histories of the ancients, of the secrets of ruins of which they do not really know. Some say however that Timor lies east [of Jāwa?] and that the route along the back (south coast) of Jāwa is south-east. The latter is the truth and no lie, and similarly with Sumatra.

As for the Andamans. They are at 5° P.S. and are 52 zām from the Indian mainland and 33 zām from Siam. The Andamans consist of isolated islands in the sea, between each of which there are straits where the sea is not deep. The widest of these straits are at 4° P.S. and at 1½° P.S. The general direction of the islands is SSE. as far south as Jāmis Fūla and beyond this again you will only meet islands. These are known as Manqāmārūs, after Mārūs a well-known peak in Sumatra. Around here are many rocks (or deserted spots) whose name is al-Kabīra (?).<sup>20</sup> For God has not given them a name of their own or thrown an honest Muslim amongst them.

From Jāmis Fūla to Mahkapang you should take SE. and E. by S. will take you to Lāmuri and the Sumatran coast.

The inner (east) coast of Sumatra has many harmful shallows on it stretching out towards the mainland of Siam.<sup>21</sup> There are so many shallows west and south of [the mainland] and also west and east of Jāwa. And I have made known the names of all the islands there and now I will give the bearings of all these islands.

From Karīmū E. by N. brings you to Bayān and Karīmū is at 2½° L.B. and Bayān is at 4½° L.B., the same as Sunda. From Karīmū

<sup>19</sup> The text is here confused as Lasem has been corrupted to an Arabic word resembling it. The text reads, "concealed as to name" or "concealed, the name (for the capital, etc)".

<sup>20</sup> *kharā'ib* can be "uninhabited places" or "a kind of shoal" and the latter phrase may mean that they take their name from the largest of them.

<sup>21</sup> The text has *مشرفة لبحر حد المل* which could be (a) *مشرفة لبحر حد المل* i.e. "to the limit of the mainland" a common expression of Ibn Mājid or (b) although less likely *لبحر المل* "to the edge of the mainland".

to La'ūdī<sup>22</sup> is ENE., to Malūku NE. by E. and NE. brings you to Barnī. NE. by N. to Šulūk where the latitude is 4° P.S. and NNE. to Likiwā at 3½° P.S. N. by E. brings you to Maqāsar which is exactly at 2° P.S., but at its southern point the latitude is 6° L.B. [Still from Karīmū (?)]<sup>23</sup> due north brings one to Zaitūn and N. by W. to Karīmā[tā]<sup>24</sup>. From Karīmū, NNW. brings one to Pulau Tinggi,<sup>25</sup> a well-known route, the latter place being at 5½° L.B.

Bear NW. by N. if you wish to reach Singapore. Another well-known bearing is NW. to Janbā, the distance of a *tirfa*, for the latitude of the latter place is 3½° L.B.<sup>26</sup> NW. by W. brings you to Mūsā bārī and due west Sunda bārī, while W. by S., WSW., SW. by W. and SW. from Karīmū all bring you to Jāwa and SSW.<sup>27</sup> is to Timōr. Some say to the south and the east are islands, but be cautious.

How many islands innumerable may lie to the east of this island?

I have mentioned these unknown routes aiming to make *tirfa* values intelligible.<sup>28</sup>

ff. 110r.–112r. [Latitudes of places in order north to south]

Martābān at 6° P.S.; Shahr-i Naw and the island of Barnī, the first on the north, Andamand and Fālī at 5° P.S.; Tanāšarī Andarawānī at 4° P.S.; Nāja bārī, at 3° P.S.; Tākwā and Manjal Fūla at 2° P.S.; Jāmis Fūla and Kedah at 1° P.S.; Penang (or Klang) and Dingding, Sumuṭra, Mahkapang at 7° L.B.; Fanšūr, 'Arūh, Malacca, the tail (Dhail) of Barnī at 6° L.B.; Maqāsar (northern cape), Berhala, Singapūrā, Selat Zanji, Manaqābū at 5° L.B.; Palibang and Indrapūra at 4° L.B.; Sunda bārī, Andalūs, Mūsā bārī, Malūku at 3° L.B. (but it has been related that Malūku is not in this place); the back (south coast) of Jāwa, Lāsem and the

<sup>22</sup> من كريموا لاودي امترى is an imperative but means nothing unless it comes from "to pass on" (Prof. Serjeant). On the other hand it may be part of a corrupted long name, including لاودي. For the latter see p. 255.

<sup>23</sup> Understood and not in the text.

<sup>24</sup> كريمانا الجزر perhaps for كريمانا الجزر. Elsewhere Ibn Mājid has كريمانا.

<sup>25</sup> here the latitude and the position with regard to Singapore show it to be Pulau Tinggi, which has been previously mentioned as تينك Tinggi. It is possible that Palembang could be read here, but if so, both the direction and latitude are wrong.

<sup>26</sup> The *tirfa* is the distance sailed along the rhumb to raise 1° P.S. of latitude. See my *Arab Navigation*, p. 299ff.

<sup>27</sup> It is possible that *suhaili* here means a generally southern direction as the other bearings are not given. It could also be SSE. but SSW. follows from the previous bearings.

<sup>28</sup> I have re-arranged the last two verses to make better sense here. For in this line he shows the reason for mentioning the clocklike arrangement of rhumbs i.e. as clues for working out distances along the rhumbs or *tirfa* values. The word for routes *maṭāliq* is a technical word for a route across the sea from one point of land to another using only one bearing. See my *Arab Navigation*, p. 275.

south of Maqāsar at 2° L.B.; Jarshik, Jāwa and the port of Jāwa at 1° L.B.; Surabāya, the island of Bālī (Fālī), Jāwa at 12° G.B.; Sāsī, Timor at 11° G.B.; Timor at 10° G.B.

from *Shumovsky: Tri neizvestnie lotzii. Facsim. f. 97v.–104r.*

[The Rajaz poem] called al-Mal'āqīya [giving the route] from the Indian coast to the coast of Ceylon and Nāka bārī, Sumuṭra, the Siamese coast, Mal'aqa, Jāwa and whatever is on this route in the way of islands and banks, with their landfalls and a description of them and the depths around them. Also of Qafāšī and its shallows and all pertaining to this east and south. Also of Ghūr and China to the limits of the eastern uninhabited lands<sup>29</sup> on the Baḥr al-Muḥiṭ beyond which there is nothing but the mountains of Qāf.<sup>30</sup>

[The first part of this poem refers to details of the route from Kālīkūt (Calicut) to Nāka bārī (the Nicobars) and does not concern us here.] [f. 98v. l. 17] Nāka bārī is a high green island and quite large. It lies NNW.–SSE., being divided up by estuaries.<sup>31</sup> Off its northern cape you see reefs, but if you approach them you find them deep enough and north of them is an island with trees and many coconut palms [99r.]. At its northern cape the Farqadān show 9° exactly<sup>32</sup> but the expert passes south of it (the island). Suhail and Zālīm<sup>33</sup> at its northern point are 5½° if measured accurately. But the southern end of the island [Gt. Nicobar] which is to your left is well authenticated as 6¼° and here you strike the point and publish the flag and Suhail and Ma'qal show 7½°, a customary measurement, but with no room for play (?).<sup>34</sup> But he who overestimates this even a little,<sup>35</sup> if he does not make a landfall must seek mercy from God and if he does make a landfall should read a strengthening Fātiḥa for me.<sup>36</sup> For at the southern point of them Suhail and Ma'qal show 7½° and you

<sup>29</sup> Reading الخراب الشارقة for الحرات الفارة.

<sup>30</sup> Jebel Qāf is a relic of the classical geographers.

<sup>31</sup> خيران this may refer to the straits between the islands. The island of Nāka bārī may here refer to the archipelago.

<sup>32</sup> 9° L.B. is 2° P.S. and is the southern point of Manjal fūla (Little Nicobar). Presumably an expert (*hādhiq*) can pass between the two large Nicobar islands.

<sup>33</sup> I.e. measurements using Canopus and α Centauri 5½° is the equivalent of 2½° P.S. in other places 6¼° is 1° P.S. At the latter, Ma'qal which is β Centauri is presumably 7½° agreeing with Ibn Mājid's note in the *Fawā'id* (f. 15r.) that these two measurements are 1¼° apart. Other stars are used below but for a complete list see my *Arab Navigation*, p. 339 ff.

<sup>34</sup> See my *Arab Navigation*, p. 322 ff. for the explanation of the Arabic words نفس and عارة which are used in these phrases.

<sup>35</sup> This is very difficult but the meaning is more or less inferred from the text.

<sup>36</sup> The first *sura* of the Qur'ān.

can see [the islands] to the north and slightly to the east. These islands are surrounded by deep sea and these mountains are high and green. Altogether there are ten islands and the best known of them is called Sarjal. This is the southernmost of them, separated on the west (?),<sup>37</sup> long and very green. The other single islands are to the north and in the middle and in the east could be mistaken for those around Socotra only larger and they are more numerous.<sup>38</sup> The latitude at which you reach them from Ceylon is  $6\frac{1}{4}^{\circ}$  by Suhail and Zalim, a sure measurement and their distance is 50 "theoretical" *zām*<sup>39</sup> from Ceylon [99v.], but using "practical" *zām* you will find 64 and their total distance from Calicut may be a hundred *zām* or more. But you should rely on your latitude measurements and use the number of *zām* only for an estimated position, if by any chance the Damānī clouds prevent a latitude observation. In the Damānī season there are special measurements for Ceylon. When the Pole Star is at  $1^{\circ}$ , 'Anāq (ع) and  $\alpha$  Ursae Majoris are  $4\frac{1}{2}^{\circ}$  but beware of their diminution (?)<sup>40</sup> if you wish to use them successfully. Also Sharaṭān setting used with 'Anāq are  $4^{\circ}$ , a measurement which is useful when turning round Ceylon. Over the Nicobars they are  $4\frac{3}{4}^{\circ}$ . Therefore make the best of your latitude observations and use *zām* only as the basis (of an estimate). Anyway here 100 *zām* is well-known as the distance from Calicut to Nāka bārī, roughly 13 days of sailing and at this stage ease the sail on a dark night and take care. If you make a landfall on the west of the island, turn, on sighting it SE. for two *zām* in a fair wind for your route is clear to the south and the sea deep. Then turn SE. by E. for 5 *zām* and then turn again SE. to make a landfall on Jāmis fūla, drawing near to it but not too close. Then sail to Sumatra, E. by S. [100r.].

If your wind is a hot land breeze, opposing you, anchor near the land, and there the lead will not touch bottom for it is deep.

When you wish, set sail, wearing (?), for the [Malayan] mainland, for this [coast] cannot be missed by a knowledgeable person. On this course (E. by S.) you come to Pulau Tanbūrak with Pulau Perak to your north. You reach the coast at Pulau Penang if you are *fāli*<sup>41</sup>

<sup>37</sup> *Shaqq al-gharb* شقّ الغرب, Shumovsky's *otdeljaetcja k zapadu*. Perhaps "the western side is long and green" is meant although the adjectives do not agree.

<sup>38</sup> Here is an unpointed and obscure word—perhaps "they are further apart".

<sup>39</sup> For "theoretical *zām*" and "practical *zām*", see my *Arab navigation*, p. 299.

<sup>40</sup> *naqṣ* = *ḍaiyaq* See my *Arab Navigation*, pp. 322 ff.

<sup>41</sup> *fāli* means nothing, but the word may be *qāli* which occurs in the *Fawā'id* and refers to the sail-filling quality of the wind, i.e. its force and direction and it may here be "having the wind directly in the sail" i.e. the opposite of "wearing". On the other

or otherwise at Dingding. Anchor there if you wish to take on water, for water is found under the larger reef. People will come out to you here in small boats so draw near to it and leave them and their *khurāb*<sup>42</sup> to the right but some to the left. The depth here is 20 fathoms and no muddiness but the bottom is mud and clay. The high mountains of the mainland are a journey of two days from the coast. These are the Jibāl al-Qalī, scattered peaks, and coming to an end near Mal'aqa. The high mountain of Dingding is part of them. You can see it from afar, as far as the islands of Pulau Penang. But higher than this is the one that you can see from near Pulau Perak so that it is impossible not to fall in with it on your course. Pulau Perak is a small island between the two coasts (Sumatra and Malaya) and you incline 4 *zām* from the island for the coast (?).<sup>43</sup> It resembles the island of Fīrān<sup>44</sup> but it is higher than it, and [Perak] has trees on it and the depth around it is fifty fathoms, rocky or deep water.<sup>45</sup> You can see here from the top of the mast all the mountains of the Siamese coast; and when you see those which are over Pulau Penang [100v.] they appear just like Saibān (Ceylon)<sup>46</sup> when you sight them from afar and you think them separate islands with their sides sloping straight into the sea.

Pulau Penang is an island with many other islands round it. Near it on its southern side are three or four [islands or fathoms?]. On its outside or western side is a reef with many small trees on it like groups of houses blackened from rain. Do not fear, but anchor there when you see that the water is 20 fathoms and between this reef and the coast there is a clear channel. This is a landfall for both a direct sailing ship<sup>47</sup> and for a wearing boat. Pulau Perak is westwards of this by 4 *zām* in a good wind, (but on the coast) they do not

hand it could mean "if the wind is the right strength". Shumovsky translates, *esli protiēnī [veter]*, "if the wind is contrary", but Penang is the usual place to reach the coast and Dingding unusual.

<sup>42</sup> *khurāb* are (i) rocks (ii) uninhabited or destroyed areas; the former makes the most sense here.

<sup>43</sup> This is a curious sentence, but for the sense compare with the other texts on this island.

<sup>44</sup> Off the west coast of Arabia, latitude  $17^{\circ}$  N.

<sup>45</sup> *quff au ghazar*; "shoals or deep water" would be the real meaning, but shoals in 50 fathoms is rather unlikely. Shumovsky's translation, "stop or find yourself in deep water" makes no more sense.

<sup>46</sup> Saibān (Ceylon) has been deleted and Saibān has been inserted. Saibān is a volcanic cone in the Red Sea.

<sup>47</sup> *fāli* for *qāli* again. "having wind-filled sails". This could mean a boat coming directly from the Nicobars as opposed to one that is coming indirectly from Sumatra (Samudra).



reckon it as an island (belonging to their coast) for it is small with one side low and the other high, and it is met with by the traveller both coming and going. It is high, approximately round, isolated and surrounded by deep water. There are no shoals around it and (you find) the depth there to be 50 fathoms. ESE. from (Perak) you reach Dingding and  $E\frac{1}{2}S$ . brings you to Penang, SE. brings you to Pulau Tanbūrak, which places you near Qafāṣī. Pulau Penang however is nearer the coast and a large island, larger than the first and its companions and other indications of it are not far from it. It slopes down steeply to the sea and when you see it in the distance aim for it and do not pass it unless you are sure of the wind. Drop anchor there safely [101r.] in about 20 fathoms, but do not enter [between the island and the mainland]<sup>48</sup> or approach it especially the southern part of the coast facing the mainland for there you will find ...<sup>49</sup>.

From here to Sumatra (Samudra) is WSW. and the return journey (to India) is W. by N. inclining towards WNW. Beware of the tides towards the north [of the island]. Whenever you approach Pulau Penang sail for a *zām* SSE. from it and then incline to the south; you will then see the shallows on your left where the water will appear white; beware of these. Then you will see the signs of the islands of Dingding. These are large islands with channels between them for small ships as if they are upturned *nāwāt*<sup>50</sup> spread along the coast? From them bear W. by N. to Samudra. From Pulau Penang to Dingding is 4 *zām* travelling in 15–20 fathoms and sometimes 30. There you will only meet a clear safe sea and the route is much used. Over the Dingdings is a mountain known as “the hump”, aptly described. Then you see before you the nine island(s) of Pulau Sanbīlan whose landmarks I have mentioned before and from them you see Pulau Tanbūrak isolated in the sea, of considerable size [101v.].

Know that when you have left Pulau Penang behind, you see Pulau Sanbīlan Malacca. These are nine islands, so reach them quickly and use the stone killick (*al-ṣīnīya*) among them because [the bottom] is jagged (edged with rocks) and the water flows through them and if you wish, anchor in 20 fathoms and spend the night safely. Leave the long island to the south of you and around it

<sup>48</sup> This is understood by me and does not occur in the text.

<sup>49</sup> This is illegible, but Shumovsky has “For there is hardly enough water here to cover the flat land”.

<sup>50</sup> نوات is an unknown word. The next phrase is also not clear. I am following Shumovsky's reading طول نحو البر although the text reads أكثر for the last word.

are other islands, and make for two islands on your left with people on them. Beware before you reach the Shīn<sup>51</sup> which is an island beach which you can see with a few trees on it similar to [the beach ...].<sup>52</sup> If it is night unless you are ignorant, you will incline towards the coast and north of all of them. Do not sleep at night for the winds here batter from all directions most of those who are neglectful of their ship. The depth is 20 fathoms between the islands and the anchor drags and does not prevent you from sailing, the sail gets soaked and there are tides. The islands are close together so don't be heedless, but on the seaward side of these islands the sea is deep and there you will see Pulau Tanbūrak and also the coast. But the coast of Sumatra cannot be seen from the island but only from half-way between them. If you wish you can enter Qafāṣī from here [Tanbūrak], you can see the coast and the trees afar off but beware of the seven [nine] islands<sup>53</sup> to the south of you and S. by E. [102r.] by 2 or 3 *zām*. When you have passed these islands make ready the rigging, the anchor, the lead and the small boat and other tackle and incline when you see that you have passed the islands and there only remains the top of the mountain. There is an established tradition that Dingding is due north [from here] but in actual fact it is N. by E. You see in this place the mountain of Qafāṣī and people call it Fal Fāsalāl [Pulau Bāsalār].

This is SE. by S. of you and also you see white water when you reach 9 fathoms but do not fear if it is so. Pulau Bāsalār has a bearing SE. by S. without any doubt but you can incline also SE. when you are near, taking always 9 or 10 fathoms with white water on your left and green water on your right. Your bearing should be S. by E. or due S. when you come out of this but continue in 9 fathoms until you come to a place with 7 fathoms. Here all the water of Qafāṣī is white and the sail should be trimmed just right. The flow of water is with you on entering (but do not anchor here) and the shallows go from you towards the right. Change the bearing at this place—bearing again on SE. by S. and in a depth of 7 fathoms [f. 102v.]. If you incline to the right the water shallows and it is deeper towards the coast with no shoals. Here you should place

<sup>51</sup> A unique term or a Malay proper name, or perhaps a feature shaped like the letter. *Shīn* is a letter of the Arabic alphabet. Literally translated it reads, “before you reach shame in the form of an island beach”.

<sup>52</sup> سبيل is repeated probably for some unknown proper name similar in form.

<sup>53</sup> The text has seven all the time but the Arabic for seven or nine is easily confused when wrongly pointed or not pointed at all. If “here” is Tanbūrak, the nine islands to the south must be Jumar (Aroa islands) which are not otherwise mentioned. On the other hand the nine islands may be Pulau Sanbīlan themselves.

your longboat on the leeward side and not to the windward.<sup>54</sup> [The leeward will serve you best, so follow the correct procedure and use the lead].<sup>55</sup> You then see appearing, joined to the mainland, islands with trees, each island possessing a reef. How many *kabbīn*<sup>56</sup> are behind them reaching out from them towards the north. If you are sailing from the north and near them you should be bearing E. by S. but if you are travelling in the first part of Qafāṣī, SE. by S. is the bearing. Travel on this bearing (E. by S.)<sup>57</sup> until you see the mountain ENE. and there the water appears green and deep then you have passed all the danger. This [mountain] is the Pulau Bāsalār mentioned before and you can then see Pulau Sabtā from the masthead but only in the clear weather when it appears dead ahead.

Take heed when you are before Qafāṣī before the water reaches seven fathoms, (for seven fathoms is quite shallow so do not be ignorant of the facts there). Therefore your course should be SE. by S. and the water 7 fathoms coming and going (?). If you incline to the SE., the water should deepen or if you incline to the SSE. the water should shelve. Do not worry about all this changing of depth to your right or left, you will find many ways through without any shoals [103r.] and safe, for it increases or decreases only a cubit or so. So go slowly back and forth<sup>58</sup> and have no fear of the route. But there is a possibility that the current will throw you off course, if you are neglectful, but there are no rocks and no banks for all of it is known and it is possible to anchor and there are no large waves. It is a safe and calm enough anchorage for the pearl diver. So that if the night comes on you while you are there, anchor. If the wind is behind you and favourable and does not last more than a watch although a land breeze can be burning hot, making it a misery.<sup>59</sup> But for two watches, it will certainly throw you to the south especially

<sup>54</sup> The words "jawsh" and "dāman" are used for leeward and windward respectively, literally meaning "tack" and "clew". The next verse is not clear and a translation has not been attempted. It is not vital to the sense and probably consists of wrongly copied puns or a proverb. One might expect the longboat to be kept on the leeward side so that the inference is lost.

<sup>55</sup> This verse is obscure and the two halves do not rhyme so one must suspect an error in the text. The section in square brackets is hardly more than a guess.

<sup>56</sup> Shumovsky treats two words here, "kabbīn" and "nāwīn" as proper names. This is certainly wrong. *Kabbīn* may be *kabīr* i.e. "large" or a word for the hills behind the islands. *Qubbāt* is used for this elsewhere by Ibn Mājid. *Nāwīn* is therefore "rising". *Kabb* might also be creeks.

<sup>57</sup> The bearings are confused here. E. by S. fits this position better than SE. by S.

<sup>58</sup> *al-iqbāl wa'l-tasā'* is obscure but may be a version of the more common phrase, *iqbālan wa idbāran*.

<sup>59</sup> The meaning of this sentence is doubtful, the terms may be more technical than this.

if some of the wind blows that way. However even for less than a watch you will be able to rest. This is the coastal route—clear—and no other route is like it. [A long piece of non-topographical material follows.]

Now for a second route. Travel from Pulau Sanbilan in water of 9–10 fathoms keeping your bearing until you see the depth decrease so that [103v.] the lead cannot register more than seven, the bearing being SE. by S. [and you then reach what appear to be small islands ESE. or E. by S. of you. Then you will reach Qafāṣī within a *zām*. If you leave the green water and look to the land which is covered with green on your left and you can see the beach, you should be travelling SSE. or thereabouts [and should continue on this bearing]<sup>60</sup> until you see Jabal Qafāṣī, SE. Beware here of the ridge on your course so take 20 fathoms. You will also see a bank in comparatively deep water with no real danger attached to it. For I have crossed it and the depth was about 12 fathoms, but beware when you are near it and if the water increases to 24 fathoms beware lest you fall in the middle of it, if you pass it at night. But during the day it is clearly white with some dark in it, like the 'urūq near Cape al-Thawr over Mocha, so be warned. This lasts until Jabal Qafāṣī is NNE., then you have left these shallows astern and you should be back in green water. From there it is two *zām* to Cape Madūra called Sanyā in the Indian language. This is east of an island which has trees on it and from there you can see Sumatra. The trees seen there are near to the coast of 'Arū. Beyond the bay is Pulau Ubī a *zām* away. [104r.] and here is a harbour west of Mal'āqa and landwards of this is a small island with tall trees around it. You should then bring up the ship to the landwards of this for it is impossible that anyone could ever miss it.

Whenever you lose Bāsalār in the mist look for Pulau Sabtā which is to the south and east of it and around which are ten or so small islands—anchorages for a stone killick.<sup>61</sup> They can be seen from near Cape Madūra which you pass by on the way from Qafāṣī to Malacca (Malāqa), for they are five *zām* on the journey in a swift wind and a large ship will find it dangerous there and will find that it takes a day and a night (8 *zām*).<sup>62</sup>

<sup>60</sup> This is another guess for an untranslatable line which is unpointed. A proper name might be suspected but Shumovsky's, "You will be lost in the vastness of the sea" is not appropriate.

<sup>61</sup> *marāsi 'l-ṣini* is either poetic license for *al-ṣiniya* (a form of anchor), or perhaps "anchorages for people coming from China".

<sup>62</sup> This is followed by *bil-ṣūr* showing a special arrangement of the sails, or perhaps *ṣūr* is a kind of spinnaker. Cf. my *Arab navigation*, pp. 48, 262 and the *Fawā'id*, f. 85v.,

The harbour of Malacca is between Pulau Ubī and Sabtā. So enter the port successfully moving through five fathoms to four and then anchor.

The people then come out to you—and what people. They have no culture at all. The infidel marries Muslim women while the Muslim takes pagans to wife. You do not know whether they are Muslim or not. They are thieves for theft is rife among them and they do not mind. The Muslim eats dogs for meat for there are no food laws. They drink wine in the markets and do not treat divorce as a religious act. They think little of promises and presents and generally despise them. They appear liars and deceivers in trade and labour. Be always careful of them for you cannot mix jewels with ordinary stones.

from *al-Fawā'id fī Uṣūl 'Ilm al-Baḥr wa'l-Qawā'id*, MS. 2292  
f. 52v., l. 19–f. 56r., l. 13

[A section having latitudes according to the Little Bear and the Great Bear, but including much other information. This is complementary to the information given in the *Ḥawā'iyā* between ff. 110r.–112r.]

At 8° L.B., Jāmis Fūla, Qedah and Qalānd[an]<sup>63</sup> and this is a cape on the Malayan peninsula. At 7° L.B., Mahkapang on the west coast of Sumatra, and on the east ...<sup>64</sup> is Cape (Ra's) Perak, and Pulau Berhala, Kelang, Salang[or] and on the coast of China Pāng Pātik. At 6° L.B., Malūk,<sup>65</sup> ... and in the Javanese language “deep water” on the [west coast of the]<sup>66</sup> island of Sumatra and on the east, Rokan and Malacca on the mainland. At 5° L.B., Fanšūr west of Sumatra, and east, Tinggi and Singāpūr which is a little more than five and is the extremity of the Siamese mainland. At 4° L.B., Manaqābū on the west of the island and on the east of it the Little Bear is at five according to the Cholas for Palibang. We agree with them, but some say that Tabāku Tarmid, the south eastern end of the island of Sumatra is at 3 $\frac{3}{4}$ ° L.B. At 3° L.B., Sunda bārī is the

l. 17. Shumovsky shows an alternative construction; “It will find it dangerous if it sails during the night, but by day [it can follow the coast]. The phrase in *my* brackets however cannot properly render *bil-ṣūr*.”

<sup>63</sup> قلاوند for قلاوند. Sulaimān al-Mahrī has قلاوند. Ibn Mājid has ق in many places where Sulaimān has ك.

<sup>64</sup> The text has ركن وملاحة مول deleted; presumably inserted in the wrong place.

<sup>65</sup> ملوك Moluccas, although it is possible that the name represents an island in the Maldives. A section after this name has been deleted.

<sup>66</sup> المظلي for the “west coast” seems to be omitted, but the next phrase has المظلي so presumably it is to be understood here.

beginning of Jāwa on the north. We and every one in the world agree with this; because of its fame, and also Mūsā bārī and this appears as an island where the L.B. shows a little over 3°; it is east of Sunda bārī and has other names besides this. Hānū is sometimes called Mūsā bārī but it is really near to this island and is where the sea is shallow in the way of travellers when sailing from Malacca to Jāwa. At 2 $\frac{1}{2}$ ° L.B., on the west [sic] of the island of Jāwa is an island called al-Andalāsī and that part of the west coast of the island (Jāwa) which follows it is unknown and uninhabited and has no name and on the east coast is a harbour called Shīna Qarmūn. At 2° L.B., on the west coast of Jāwa is a harbour called Shūnda which is also a cape. At 1 $\frac{3}{4}$ ° L.B., in Jāwa is the mountain of Qarfūl (Kepala) Jāwa which has to be distinguished from Qarfūl Palīng. 1 $\frac{1}{2}$ ° L.B. is over Lāsem;<sup>67</sup> but there is a great deal of variation here between us and [the Cholas] of over half an *iṣba'*. Tūban is exactly 1° and Jarshīk is  $\frac{3}{4}$ ° L.B. On the west coast of Jāwa is the island of Bālī where the Little Bear shows one *iṣba'*, thus it is approximately opposite Jarshīk, but the mainland [of Jāwa] comes between them.

At 12° G.B., Shūnaya Ṣandal. At 11° G.B., Mūsā Sādūn, which is, according to the Cholas, the end of Jāwa. According to this opinion Jāwa must be smaller than Sumatra but in the classical texts<sup>68</sup> it is otherwise. And as for Timor according to the Cholas, the northern point is at 10° G.B., and the end is at 6°; and at 10° it is called Jāhī Timor [North Timor] and at 9° is a port called Pūlan. The Great Bear is at 8° in Ghayābin and at 7 $\frac{1}{2}$ ° in Lakliwā, 7° in Laikāsīm, 6 $\frac{1}{2}$ ° in Mūtā and 6 $\frac{1}{4}$ ° in Suhailī Timor [South Timor]. All of these are islands having Sultans who are not the same as the Sultans of Jāwa, and they consist of many peoples and the direction from Jāwa to them is East-south-east and what follows it and all of them are called Timor Shāshī and others are Timor Kīdul. It is 6° in the island of Labsatī to the south of Timor to the west, 5 $\frac{3}{4}$ ° in Luwain, 5 $\frac{1}{2}$ ° in the island of Tābā, 5° in the island of Jābā and 4° in the island of Baila and this is the last of Timors among the islands of the south-east. And these are all south-west of Timor and as for the islands to the south-east of Timor; these are large islands. So are those to the east of Jāwa, large islands, like Malūkū and the islands of Barnī and Kīramū and Bayān and Kīrmānā (Karimata).

At 8° P.S. [possibly 7°], Najirāshī; Marṭabān [possibly at 6°];

<sup>67</sup> The MSS. here have على الأيسر and this can only be a corruption of a place name. I have read على لاسم for this phrase, for this place might be expected here, although Sulaimān places it at 2° L.B.

<sup>68</sup> الكتب الكبار this is Ibn Mājid's term for the works of the classical geographers and astronomers.

Tawāhī, Little Fāli and large Fāli, and Andamand at 5° P.S. Andarawān and Tanāšari at 4° and between Tanāšari and Buttum are shallows and Buttum consists of four islands and north of it lies Awzārmanda which is visible from it, and you can see the islands from the mainland in clear weather. At 3° P.S., are the islands of Takwā and their [sic] name is Tānakūlam;<sup>69</sup> at the same latitude is Nāja bārī and this name covers all these islands except one. Also at this latitude over the coast is a place called Farshīr which is a large strait. Pulau Lāntā is at 2 $\frac{3}{4}$ ° P.S. At 2° P.S. is Urang Sālim which is a cape and also there is Manjal Fūla which is the south [of Andamān]. At 1° P.S., Qedah and Pulau Penang to the seawards of it by four *zām* and seaward of this by four *zām* is Perak.<sup>70</sup> Westwards of these is Jāmūsī Fūla which, according to the Cholas, is 28 *zām* from the mainland. At 7° L.B., Mahkapang and also 'Ārūh and Pulau Berhala, Pulau Sanbilan, Dingding,<sup>71</sup> Kelang, Salang[or]. At 6° P.S., Islands of Mārūs, Fanšūr, Arkan and Mal'aqa. At 5°, Mahrāpatam and Manaqābū, Singāpūr; at 4°, Palibang, Indrapūrā.

[From f. 55r., l. 16 I have given a complete text.]

As for the estuaries starting from Najirāshī, at 7° in six fathoms of water is the island of Mainaggari then the estuary of Ṣarnayak in the Bay of Asīyah and before it to the side of it [Ṣarnayak], the Estuary of Daḥūn and whenever you aim for Asīyah and Marṭabān, the estuary of Balang comes to you. At 5 $\frac{3}{4}$ ° P.S. is the island of Kalang Malī. At 5 $\frac{1}{2}$ ° P.S. is the island of Mandadrāwī and the estuary of Tawāhī. At 5°, are two islands called Barfalī—and above them on the mainland a journey of ... days,<sup>72</sup> is Pegu, where there is a silver mine—and Baḥrfalī and north of them is Ṣayyil and the island of Ab'alāh Andarāwī and the estuary of Tanāšari off which is the island of Tana' Malī. To the shorewards of [the latter] is the road and there are the estuary of Mergui and the former estuary of Malakī with the islands of Buttum off it and there begins the islands of Takwā as far as 2 $\frac{3}{4}$ °. At 2 $\frac{3}{4}$ ° P.S. Pulau Lāntā is the limit of the islands of Takwā and the islands of Takwā are called Pulau Sanbilan

<sup>69</sup> ناكولم for تانكولم. Sulaimān has تنكولم. Tanakūlam is actually *one* of the islands of Takwā.

<sup>70</sup> فبرق. The margin has فبولفريك with a ك and omitting the . Both Ibn Mājid, elsewhere, and Sulaimān use ك; e.g. فبرك.

<sup>71</sup> The text has دلنج دنج Dang Dalang, elsewhere it has Dang Dang.

<sup>72</sup> نعل مسيرة الابهى يوم i.e. a journey of ... days. The third word is unpointed and ought to represent a number, but no number will fit in. It is also rather strange that the route to Pegu should start so far south. Sulaimān states that Marṭabān and Kasmā are the ports for Pegu. The whole line between the hyphens seems out of place, or a gloss inserted into the text.

Takwā. This brings you after Pulau Lāntā to Pulau Kālmahdī at 2 $\frac{1}{2}$ ° P.S. Then Pulau Tam is at 2 $\frac{1}{4}$ °. Then there are seven islands at 2° or little more called Sajā Sanbilan,<sup>73</sup> each one of which can be seen from the others, and after that Cape Urang Shālang and then Khor Trang. Against the last is an atoll and north of it against the cape are three islands over against Khor Talang between it and the cape. One of these is called Mantā and one Kandiā, and one Sabyā and south of them is the island of Pulau Buttum (i.e. Butang) at 1 $\frac{1}{2}$ °. At 1° is Qedah and Pulau Penang and seawards to the west, Pulau Ṭanbūrak, and seawards of this, to the west, Pulau Pērak. After them are the islands of Dingding and Pulau Sanbilan Mal'aqa at 7° L.B. or a little more; but I think this amount is sufficient. And when you have left them behind you, you see the bay and south of it are the shoals of Qafāšī. When you come from Sumatra, steering south-east-by-east, leave behind Pulau Berhala to the right and north. This is a large island and east of it there is a medium sized island, and to the east of this is a small island; the name of all three being Pulau Berhala. When you travel from it for three *zām* you see Pulau Pāndan which again consists of three islands, the water around them being deep. Then you travel from them two *zām* leaving them on your right and you see Pulau Jūmūr. This is nine islands in three groups, each three being in a group with the western group larger than the eastern one although they are all small islands, gradually decreasing. On them are tall trees [f. 56] and around them the depth [is generally 24 fathoms and when you travel from them and leave them behind a *zām* or two use the lead]<sup>74</sup> at intervals until the depth reaches 12 fathoms. This is Qafāšī and moreover you see east of you an island<sup>75</sup> and it is a long mountain with water of three fathoms around it. You steer SE. by E. in water of 12 fathoms upon Qafāšī which is a bank with discoloured water and shallows over the south cape of the Bay of Balang Sālang. The idea is to remain in water of 12 fathoms for the route through Qafāšī and when you find 11 fathoms return to SE. by S. and SSE. until you again find 12. Then keep the depth at 11 until you reach Pulau Bāsālār and leave it behind and when it increases to 12 and deeper take 24 fathoms and the shallows of Sumatra are far from you to the

<sup>73</sup> سجا سجا سجا cannot be explained. The Malay word *saja* (*sahaja*) means "also". It is doubtful whether the Malays would call the islands this to distinguish them from the other Pulau Sanbilan.

<sup>74</sup> The passage in square brackets is in the margin.

<sup>75</sup> This island may be Pulau Basalar, which is mentioned later and is used by Sulaimān as a guide over this bank, although he does not mention turning to SE. by E. when first sighting it; it may be Pulau Hansa which Sulaimān only mentions when using the more direct route from Pulau Sanbilan Malacca.

right. When you are over Qafāsi and when you come out from it the water increases to 12 and you take water at 24, for fear of banks between it and Mal'aqa. There are two banks one 2 *zām* beyond Qafāsi and one between Qafāsi and Mal'aqa and they are all of them 8 *zām* [in length?]. When you have left them behind you, travel nearly 6 *zām*, four into the mainland and the rest [parallel to it] until you see the four islands, Pulau Mal'aqa, Pulau Sabtā, and their fellows. The one nearest the shore should be to your left and the other three to your right and you sometimes see the houses. Then cast [anchor] in the harbour. And this is sufficient on these places for most of them need the craft of the "takang" and not that of the real ocean-pilot (*mu'allim*).<sup>76</sup>

f. 68v., l. 4–f. 69r., l. 13

The third island is that of Sumatra. This is an island through which passes the equator. A man who did not know better said that it passed to the north, but we think that it passes to the south. The correct position of the equator is at 5° of the Little Bear at the moment when [the Guards] are in a horizontal position on the east when Sunbula culminates overhead.<sup>77</sup> There [at the equator] the two poles are at an equal distance. These are not two stars but two places [the line between] which separates the regions of the east from the west. The island of Sumatra is the residence of al-Ḥāṭī,<sup>78</sup> the ruler of all Abyssinia. Certain rulers are at war with him but he is the greatest of them all. Opinion differs as to the name Sirandīb, some say it is the name of the island of Ceylon and some say of Sumatra. What is certain is that the equator is confused with the Valley, i.e. the Valley of Sirandīb [ff. 68v., l. 10–69r., l. 2, are about Sirandīb, and the meeting of the equator and a standard meridian in the "Valley"].<sup>79</sup> Sumatra has a large number of infidel kings. It is

<sup>76</sup> "takang" must be a Malay word although the vowels are doubtful—possibly tukang is meant. Ibn Mājid however means by this the local coastal pilot, and he uses the same words in speaking of the *rubbān* or coastal pilot of Arabia, or the *Dangari* of the Gujerati coast.

<sup>77</sup> قوف الرأس Ferrand translates "au-dessus du cap" which means nothing. The meaning of the passage is quite clear and refers to the correct position of the constellation for taking these latitude measurements.

<sup>78</sup> الحاطي a royal Ethiopian title, *hade ḥḥ*. This is about the only place where the navigators have confused Africa with South-East Asia because of the old classical conception of the Indian Ocean.

<sup>79</sup> Having identified Sirandīb with Sumatra, Ibn Mājid inserts all he has to say about it here. The standard meridian which meets the equator in the valley of Sirandīb is the centre one dividing the East from the West, thus putting Sirandīb at the centre of the earth's surface. I have omitted this passage as it does not deal with South-East Asia. Ferrand gives it in full in *l'Empire sumatranais*, p. 80–4.

the land of white elephants, camphor, mace and musk which can only be bought by weight of gold. All its governors are infidels. In the north of the island the latitude is 7 $\frac{3}{4}$ ° L.B., and in the south a little less than 4°.

The fourth island is Jāwa to the south of the equator, in the first southern climate. The latitude of its northern point when the Little Bear is horizontal on the east at the culmination of Sunbula is 3° according to the Arabs, but the Indians say otherwise. It is not quite as large as Sumatra, and both Muslims and infidels dwell there, but its Sultans are infidel. It is the country for benjoin. The islands of Şandal<sup>80</sup> are to the south-east of it and so are the Islands of Spices.<sup>81</sup>

The fifth island is that of al-Ghūr, the country of the al-Ghūrī iron and the sharp (pure) swords made from this iron. Its name in Jawi is Likiwū,<sup>82</sup> and its Sultan is an infidel at war with the sultans of China in spite of their strength and their ability. Its people have great might and no race has more courage and other men cannot prevail against them except by combined effort.

## 2. SULAIMĀN B. AḤMAD AL-MAHRĪ

from *al-'Umdat al-Mahrīyah fī Dabḥ al-'Ulūm al-Najmiyah*, MS. 2559  
f. 21r., l. 13–f. 22r., l. 1

Section on the sea-routes near the Siamese mainland. The journey from Sundīb<sup>83</sup> and Fāradīb to Shāṭī Jām<sup>84</sup> is [made in the direction] ESE.; from Shāṭī Jām to the island of Zanjiliya<sup>85</sup> is due south and from Zanjiliya to Nājirāshī, SSE. From Nājirāshī to Marṭabān is ESE. and from Marṭabān to Tawāhī, SSE.; and from Marṭabān also to the island of Falī, due south. From Falī to the island of Buttum is due south and from Buttum to the islands of Pulau Sanbilan Malacca,<sup>86</sup> SSE. From Pulau Sanbilan to the islands of Pulau

<sup>80</sup> جزر الصندل The Lesser Sunda Isles.

<sup>81</sup> جزر العقاقير

<sup>82</sup> لکیو If Liu kiu, it must be the name in Chinese, not Javanese.

<sup>83</sup> سندیب Sandwip in the Ganges delta. فاردیب must be a neighbouring island.

<sup>84</sup> شاطی - جام Chittagong.

<sup>85</sup> On f. 65r., l. 1, is "Zanjiliya (10 $\frac{1}{2}$ ° P.S.) is not an island at the present time but a (coral) reef on which the waves break. Towards the sea from it is the southern point of the bank, Kuriya كورية"; The latter is marked on early European maps as Choriya, a little south of Chittagong.

<sup>86</sup> This usually means the islands of Pulau Sembilan off the mouth of the Perak river. In this case this route would be impossible by ship, unless Buttum here means Pulau Butang, which is often written Butom by early European navigators. Most certainly a section has been omitted by haplogogy, because of the resemblance between the names of the two islands.

Jumar (is due south and from Pulau Jumar)<sup>87</sup> to the mountain of Pulau Bāsālār, SE. by E., although some say ESE. Then from Pulau Bāsālār to Malacca it is SE., and from Malacca to Singapūr, and this is the end of Siam to the South and there the Little Bear is 5° [above the horizon] ... But there are two opinions about this, one says it is ESE., and the other SE.

*Section on the sea-routes of China.* The journey from Singapūr to Banagh, where the Pole Star is 4° [above the horizon], is N. by W. Then from Banagh to Šūrā, at 4¼° P.S., it is NNW. From Šūrā to the Gulf of Kūl, at 4½° P.S., it is NW. by W.; and from Šūrā to Shahr-i Naw, at 5½°, due north. Then from Shahr-i Naw to Cape Kanbūsa, at 5° P.S., is SE. by E. From Kanbūsa to Shanbā at 7° P.S., is NNE., and from Shanbā to the Gulf of Kawshī at 10° P.S., NNW. while from Shanbā to Bandar Ayam at 12¼°<sup>88</sup> it is NNE. and from Ayam to Bāb-i Šin on the coast at 17½° P.S., it is NE. and from Bāb-i Šin the land turns round towards the south as they have told us.

f. 25v., l. 14–f. 29v., l. 11

*Section on the Andamān and Nicobar islands.*<sup>89</sup> The island of Andamān al-Kabīr begins in the north at 5½° and ends in the south at 4½° P.S.<sup>90</sup> Next comes the island of Andamān al-Šaghīr, the northern cape of which is at 4¼° P.S., or almost 4½°; and its southern cape is at 3½° P.S. Between the southern point of Andamān al-Kabīr and the north point of Andamān al-Šaghīr<sup>91</sup> (there is a *bārī*, that is a passage, which is called Bīrūn Shīrū. Opposite to the east) there is an uncovered atoll called Kanākil which is four *zām* from the strait. Andamān al-Šaghīr is called Shitta Andamān by pilots and Andarawān al-Šaghīr by the Gujeratis. The latter call al-Kabīr, Andarawān al-Kabīr. In the tongue of the Cholas, al-Kabīr is called Periya Andamān and al-Šaghīr, Shitta Andamān. At 3¼° P.S. are found fifteen islands called Wijī Andarāwī. Among them are shallow straits with three fathoms of water. At 3° P.S. there is a large passage called Purun Shīr. Where the Pole Star is 2¾° is found a large island called Karī Nākabārī, and about three *zām* to the east of these

<sup>87</sup> This section in round brackets is added in the margin in a different hand. It appears in the *Muḥīṭ*.

<sup>88</sup> The text has been erased and rewritten. It formerly read *إحدى عشر* but now reads *التعشر*. Most of the latitude values in this section have been re-written.

<sup>89</sup> *Andamān*. The text has "island" (in the singular) "of Andamān" and "islands (plur.) of Nicobar" *نواح باری*.

<sup>90</sup> The *Muḥīṭ* here inserts the phrase, "it is inhabited by cannibals" cf. the classical geographers.

<sup>91</sup> The section in brackets is written between the lines.

islands<sup>92</sup> is an island called (Kashfulā Andarāwī, and at 2° P.S. is)<sup>93</sup> Manjal Fūla. At 1¾° P.S. comes the northern point of the island of Sarjal, and its southern end is at 1½° P.S. A passage exists where the Pole Star is 1¼°, and the island of Jāmis Fūla is found at 1° P.S.<sup>94</sup>

Know that to the east of Andamān al-Kabīr, at 5½° P.S. is an island called Andaramandā. These islands are all on the same line as the atoll of Kanākil. Off the northern cape of Andamān al-Kabīr is an island called Qauqī Andarāwī at 5½° P.S. When you require to set out from the point of Andamān al-Kabīr to Najirāshī your direction should be NE. On this course you will find two islands one called Tarakī, the other Farsawā at 6° P.S. and after these you will come to an island called Fī Farsawā or the Isle of Jinn<sup>95</sup> at 6½° P.S. As for the sea-route to Fāl Andamān and the Nicobar islands, which are situated below them to the south—the route from the northern cape of Andamān al-Kabīr at 5½° P.S.—there are two opinions: one due south to a spot where the Pole Star is 5°, (and from there to)<sup>96</sup> Jāmis Fūla, SSE.; or according to others due south to 4°<sup>97</sup> and from this spot to Jāmis Fūla, SSE. Some people have said that this route should be entirely SSE. Actually most of the Arabs and the people of Hurmuz follow it, but in the opinion of the author the first course is the best.

*Section on the islands in the sea off the Siamese coast*, which are called Tākwa, and are from 5°–2° P.S. The first of them is the island of Falī. This is a large island, the northern point of which is 5° P.S., and the southern one, 4¾° P.S. Next, to the south in line with it is Falī Karā, the northern point of which is 4½° P.S., and facing it in the east is the island of Lawāmand and the estuary of Markhī. After it on the south is another island nearby called Awzārmanda, having the appearance of the large sail [of an Arab boat]. The Pole Star there is 4¼°. Then, after these in line are four large islands called Buttum Bāshkalā, at 4° P.S., then an island called Shayān, at 3¾° P.S., then another large island called Līnī, at 3½° P.S. Next comes another island called Tanakūlam whose northern point is at 3¼° P.S. and whose southern point is at 3°. Then comes the island of Pulau Lantā, an inhabited island, whose inhabitants are permanently

<sup>92</sup> The islands are the Bari Nāja bārī; see f. 77r. in the text; p. 222, where a considerable passage is inserted at this point.

<sup>93</sup> This section appears in the margin.

<sup>94</sup> f. 77r. has an extra piece here.

<sup>95</sup> The *Muḥīṭ* has *جین*.

<sup>96</sup> The section in brackets is in the margin.

<sup>97</sup> The *Muḥīṭ* inserts a sentence here. "The Pole star turns with the movement of the apogees around the zodiacal pole, as we have already mentioned."

settled. Fruits are found there and it is at  $2\frac{3}{4}^{\circ}$  P.S. Next is an island called Pulau Kalārī, at  $2\frac{1}{2}^{\circ}$  P.S., facing which to the west of its northern point are the islands known as Pulau Sanbilan Siām, and after Pulau Kalārī is a small island called Pulau Ayam at  $2\frac{1}{4}^{\circ}$  P.S. Now the island of Urang Sālah [i.e., Ujong Salang, Junk Ceylon] is a large, long island to the east of these islands, its north cape being at  $2\frac{3}{4}^{\circ}$  P.S., facing Pulau Lantā, and between them are two *zām*; whereas the other cape on the south is at  $2^{\circ}$  P.S. facing the southernmost point of Pulau Sanbilan, with four *zām* between them. Beyond Urang Sālah, when you travel south-east you come to a large island called Pulau Penang<sup>98</sup> at  $1\frac{1}{2}^{\circ}$  P.S., and after this another island called Butang<sup>99</sup> at  $1^{\circ}$  P.S. Now the routes used for the above-mentioned islands, when you leave all of them on the left: from Martabān to the island of Falī, go due south, and from Falī to the end of the island of Urang Sālah, SSE., and from the end of this to the island of Butang [sic] at  $1^{\circ}$  P.S., SE., and from the island of Butang to Pulau Bāsālār SSE., as has been said. Now from Falī you do not again see the mainland until you have passed Pulau Butang. They say that there, seawards of the islands of Buttum Bāshkalā, in line with the islands which follow to the south, at about  $3^{\circ}$  P.S., and between these islands and in line with the islands of Buttum, there is water of approximately 60–70 fathoms.

*Section on the island of Sumatra.*<sup>100</sup> It begins in the north with mountain of Lāmūrī at  $7\frac{7}{8}^{\circ}$  L.B., but according to some  $7\frac{3}{4}^{\circ}$ ; and it ends in the south with a place called Tikū Tarmid. People disagree as to the latitude of this place and there are three opinions: the first that there the Little Bear is at  $4^{\circ}$ <sup>101</sup> and most of the Indians lean towards this; the second is not quite  $4^{\circ}$  and the Arabs and some of the Cholas prefer this; while according to others, it is  $3\frac{1}{2}^{\circ}$  L.B. This [latter] is the most accurate. Some have even said that the south of the island of Sumatra is only  $3^{\circ}$  L.B.<sup>102</sup>

<sup>98</sup> فتح in the MS. and also in the *Muḥiṭ*, but in other parts of the text فتح (unpointed) is given. The text has obviously transposed the two names فتح and فتح for the *Minhuḡ* has the latitude of فتح as  $1\frac{1}{2}^{\circ}$  P.S. The latitude of فتح would then be  $1^{\circ}$ , and this part of the text should read, "Beyond Urang Sālah when you travel SE. you come to a large island called Butang at  $1\frac{1}{2}^{\circ}$  P.S., and after this another island called Penang at  $1^{\circ}$  P.S."

<sup>99</sup> فتح wrongly pointed for فتح. The *Muḥiṭ* has فتح, which Ferrand reads Butang.

<sup>100</sup> The *Muḥiṭ* adds, "Know that first there is obtained *zabād*, that is musk for *ghālīya* in immense quantity."

<sup>101</sup> i.e. 4 *isba'* اصبع اصبع. The number four اصبع has been inserted above the text after اصبعين two *isba'* had been corrected to make اصبع. The *Muḥiṭ* rearranges this section but the meaning remains the same.

<sup>102</sup> The *Muḥiṭ* inserts: "It is my opinion that they are all exact, for, as has been shown before, the fixed stars move with the eighth heaven. Thus it can be seen that

Know that on the west at the back<sup>103</sup> of the island of Sumatra is a large island<sup>104</sup> called Manqāmārūs.<sup>105</sup> There the Little Bear is  $7^{\circ}$ . (Next, there are two islands called Andrasābūr which are eight *zām* off the west coast of Sumatra. Then to the south comes an island called Matahārī at  $7\frac{1}{4}^{\circ}$  L.B. There are still more islands to the south, many islands called Manqāmārūs at  $7^{\circ}$  L.B.)<sup>106</sup> Then are found at  $6\frac{1}{2}^{\circ}$  L.B. two large islands, high mountains, around<sup>107</sup> the northernmost of which are some small islands. To the east of these two islands are shallows and rocks and banks in the water.<sup>108</sup> These two islands are called Pulau Bānyaq. The Indians call them Talājih, because in the northern island, its mountains appear to you as Talājih, and they resemble the Talājih [of Gujerat]. At this spot one must be very careful, if one is coming from Jāmis Fūla. One should take with one a sailor from the coast i.e. from the outer coast of the island of Sumatra if one wishes to reach Faṣūr. On the inner coast of Sumatra the sea is always fairly shallow, especially round the port of 'Ārūh.

The sea-route on the outer coast of the island of Sumatra from Jāmis Fūla to Mākūpāng, has three different versions: the first SE.,

although the Indians find the latitude of this place  $4^{\circ}$  L.B. in our time before then the Arabs found it at  $3\frac{3}{4}^{\circ}$  L.B. while some say that they have only found it to be  $3\frac{1}{2}^{\circ}$ , and others only  $3^{\circ}$  for the extremity of the island. But it is certain that the determination of the latitudes is always debateable; since the *Farqadān* move with the eighth heaven. One must, therefore, by means of the astrolabe and the sine quadrant (ربع مجيب) determine and note the geographical latitude of each individual place and having fixed the geographical latitude, construct a chart showing all the stellar altitudes (altitudes according to the *Farqadān*, the Pole Star, etc.) for the islands and regions of the world and use this to orientate oneself.

<sup>103</sup> ظهر "the back" indicates the Ocean side of an island, the opposite is بطن, which indicates the side nearest the mainland or the remainder of the Archipelago.

<sup>104</sup> The text has كبيرة which has been changed to كثيرة to agree with the passage in the margin (see note 106). جزيرة remains in the singular.

<sup>105</sup> منقماماروس for منقماماروس.

<sup>106</sup> This passage is written upside down in the margin. The text reads quite well without it, but the writer of this section obviously intended to add a little more data. He changed the pointing mentioned in note 104 to correspond with this insertion, which rather confuses the issue.

<sup>107</sup> حوالى this word is again written in by a later hand and preceding it in the margin is the word ونصف, which Ferrand has translated, "a michemin de l'isle septentrionale". It appears possible that ونصف is meant to be inserted before the upside down passage which would make the latitude of the first Manqāmārūs,  $7\frac{1}{2}^{\circ}$  L.B. Hence the complete text would show an uninterrupted descent of latitudes.

<sup>108</sup> شعبان is the plural of شعب which means an underwater bank in the texts. The text has تدر for the last term, for which, and also for another alternative تدر, see the glossary and p. 286 of my *Arab navigation*. Ferrand reads بنود, "barrages" a Persian word meaning "dams, ties, etc."

the second SSE. and the third, due south; in my opinion SSE. is best. From Mākūpāng, a mountain on the outer coast of Sumatra at  $7\frac{1}{2}^{\circ}$  L.B. or  $7\frac{1}{4}^{\circ}$  L.B., according to some it is SE. to Fanṣūr, and according to others SE. by S. but the first direction is correct. From Fanṣūr to the end of Sumatra there are three opinions: the first ESE., the second SE. by E., while the third is SE. The first and the second theories are those of the Cholas, and the third is that of the Arabs, the people of Hurmuz and the Indians [Gujeratis].<sup>109</sup>

The sea-route on the inner coast of Sumatra from Jāmis Fūla to Lāmūrī is SE., from Lāmūrī to the port of Sumatra, E. by S. according to some, and ESE. according to others; from [the port of] Sumatra to the far end of the island, SE. according to almost everybody. The most well-known ports of the island of Sumatra are the port of Sumatra on the inner coast, to the east at  $7\frac{1}{2}^{\circ}$  L.B., the port of Mandara near Lāmūrī, also on the east. This a new port, well-known for its civilization and its justice.<sup>110</sup> The port of Fanṣūr on the outer coast of Sumatra to the west is at  $6^{\circ}$  L.B., the port of Manaḡābūh also on the outer coast to the west at  $5^{\circ}$  L.B. and the port of Palibang on the inner coast in the south-east at  $3\frac{3}{4}^{\circ}$  L.B.

Know that it has been stated that on the islands of Manḡāmārūs, there are people who are like savage beasts and are cannibals. Thus are all the people of the outer coast of the island of Sumatra. These are a man-eating rabble who are called *Batakh* of whom one must beware.

*Section on the island of Jāwa.*<sup>111</sup> The island of Jāwa begins in the north with the mountain of Sunda. People differ over its latitude, and there are three opinions: the first that it is  $3^{\circ}$  L.B., the second that it is  $2^{\circ}$  L.B., and the third that it is  $2\frac{1}{2}^{\circ}$  L.B. My opinion is that the last is the best and most exact for two reasons: the first because it is the mean and secondly the experts have mentioned it in most of their books that the Strait of Sunda Bārī is at  $3^{\circ}$  and this is to the north of the mountain of Sunda. Therefore this is nearer to the truth.<sup>112</sup> The island ends in the south at Shāndī at  $10^{\circ}$  or according

<sup>109</sup> الحود If these are not the Cholas, it is probable that the Gujeratis are meant as Sulaimān usually mentions their opinion and here they are linked with the other peoples of the Arabian Sea.

<sup>110</sup> عدل blame. Perhaps عذاب is meant. The *Muḡiṭ* has عدل, justice.

<sup>111</sup> The *Muḡiṭ* here inserts; "First know that here is found *ḡaṣa-i luban*, called *luban-i Jāwī*". The word *ḡaṣa* means in Arabic, "little stones" or "sand". Thus the phrase means "grains of incense". *Luban-i Jāwī* is benjoin, *styrax benzoin*, a resin which is grown in Sumatra and mainly in the north. The name *Jāwī* comes from earlier times when Sumatra was called *Jāwa* by the Arabs. This substance is not found in Java. Later on Sulaimān says that the small ports on the east coast of Sumatra are the ones from which benjoin is obtained.

<sup>112</sup> The *Muḡiṭ* adds a long astronomical passage here.

to some  $11^{\circ}$  G.B. Know that the outer coast [southern coast] of Jāwa on the west is in a state of ruin and is not inhabited. There is no well-known port there. The ports are all on the east coast. The general direction of the sea-routes along the inner and outer coasts are both SE. but there are islands, rocks and deserted banks.<sup>113</sup> Of the most well-known ports there are Jarshīk, a well-known port at  $1\frac{1}{2}^{\circ}$  L.B., then the port of Jāwa, from which the island is named, at  $1^{\circ}$  L.B. At the port of Surabāya the latitude is  $12^{\circ}$  G.B., and in that of Lāsem it is  $2^{\circ}$  L.B. but according to some a little less.<sup>114</sup>

Know also that to the south of the island of Jāwa are found many islands called Timor and that to the east of Timor are the islands of Bāndan, also a large number. The latter are places for sandal, aloes-wood and mace.<sup>115</sup> The islands called the Isles of the Clove<sup>116</sup> are east of Jāwa; they are called Malūkū.<sup>117</sup>

*Section on the islands of the South East.* The largest of them is the island of Jilolo, the length of which according to some is equal to two months sea voyage. It is situated to the east of Jāwa, but a long way off and to the south of China. Next comes the island of Fariyūq, a large inhabited island, south-east of the ports of China. Next is the island of al-Ghūr which is a large and inhabited island situated beyond China in the south. Its Sultan makes war on the Chinese. There is obtained the iron of Ghūr. The islands of Malūkū we have mentioned before, the islands of Maḡāṣar, the islands of Bāndan and the islands of Timor Lor and the islands of Timor Kidul; all of them are completely inhabited. Know that the islands of Timor are situated south of Jāwa in the direction approximately SSE., whilst the islands of Bāndan are roughly ESE. and the Malūkū to the east. According to one report the first of the islands of Timor begins in the north where the Great Bear is  $10^{\circ}$  and ends in the south where the Great Bear is  $6^{\circ}$  level with the port of Sofala. In the islands of Bāndan the Great Bear is  $7^{\circ}$ , the islands of the Malūkū are at  $3^{\circ}$  L.B., the islands of Maḡāṣar the first in the north is at  $6^{\circ}$  L.B. and the last in the south is at  $1^{\circ}$  L.B. In the islands of Burnai the first in the north is at  $5^{\circ}$  P.S. and the last in the south is at  $6^{\circ}$  L.B.<sup>118</sup>

<sup>113</sup> جزر وشعبان وخرابات although one would expect جزر شعبان وخرابات The reading of the text places these nouns in apposition to جزر, so that we have two sorts of islands (the terms جزر شعبان and خرابات have both been explained in earlier notes). The second rendering would give us three different sorts of hazard for shipping.

<sup>114</sup> The *Muḡiṭ* has another astronomical passage here.

<sup>115</sup> The *Muḡiṭ* adds; "which is the peel of the nutmeg".

<sup>116</sup> جزر القرفة i.e. the Moluccas.

<sup>117</sup> The *Muḡiṭ* here adds two paragraphs, one on cloves and the other on Waḡwaḡ, both of which I have included in their respective sections in the first part of this work.

<sup>118</sup> The *Muḡiṭ*, besides having another astronomical passage, adds; "There is found the medicine of Brunei (معجون بروني)".



f. 35v., l. 3–f. 36r., l. 1

*Section on the latitudes of the island of Sumatra.* The first of them on the north is  $7\frac{3}{4}^{\circ}$  L.B., which is called Lāmūrī, although some say it is a little less than  $8^{\circ}$ . Then comes  $7\frac{1}{2}^{\circ}$  L.B., at the port of Sumatra to the east, then the mountain of Mākūpāng on the west. At  $7^{\circ}$ ; Madyanā on the east and Shūshū [on the west]. At  $6\frac{1}{2}^{\circ}$ ; the port of 'Ārūh on the east but some say Ankūh and then the port of Fanṣūr on the west. At  $5^{\circ}$ ; Nahrapatam on the east but some say the estuary of Tadrīn (Indragiri) and then the port of Manaqābūh on the west. At  $4^{\circ}$ ; the port of Palībang on the east and the port of Indrapūrā on the west. At  $3\frac{1}{2}^{\circ}$ ; Tikū Tarmid and this is the end of the island in the south, but some say otherwise.

*Section on the latitudes of the island of Jāwa.* The northernmost point is the mountain of Sunda at  $2^{\circ}$  L.B. with the port of Lāsem on the east and Shūnda on the west. At  $1^{\circ}$  L.B.; Tūban on the east and Bālī on the west. At  $12^{\circ}$  G.B.; the port of Surabāya on the east and Shūmbaba Ṣandal on the west. At  $11^{\circ}$  G.B. Shāndī and this is the end of the island on the south and some say the end of it is at  $10^{\circ}$  G.B.

f. 56r., l. 5–f. 56v., l. 6

[From] *The voyage from Diu to Malacca*

... When you have passed Sarjal [one of the Nicobars], continue in the direction E. by S., until you discover land, when you sight it turn parallel to it until you come to the islands of Pulau Sanbilan, that is the Nine Islands; and from Pulau Sanbilan go due south. Now you should notice some way to the right in the west,<sup>119</sup> some islands; but you continue on your way due south until you reach the islands of Pulau Jumar. When you see them around you, turn ESE. It will be quite deep there—ten and eleven fathoms—so there is no need to fear; then twelve until the water increases and you have plenty of water. Then you have come out from Qafāṣī. Now turn parallel to the mainland until you see the mountain of Pulau Bāsalār in the NE. Then go out a little to sea and take 24 fathoms, for fear of a bank connected to the mainland. Go ahead in 24 fathoms until you see Mount Pulau Bāsalār to the NNE., and this time draw nearer to the land, then follow the mainland to Malacca.

<sup>119</sup> The text seems to have في المغارب which may have the sense of "in the west", but it might be a very badly written في المقارب i.e. "in the vicinity". There are no islands between Pulau Sembilan and the Aroa islands other than Pulau Jarrak, which may be meant, or the Western Aroas, which are so close to Pulau Jumar that they are unimportant as separate landmarks for our course.

The Cholas follow the route due south from Pulau Sanbilan for two *zām* and then turn S. by E. Then he who follows this route takes the middle course between the bank of the island of Qafāṣī, called Pulau Hansa, and the island of Jumar. When you see them together, the island of Qafāṣī to the left and the island of Jumar, in the distance to the right, then you turn SE. by S. There the depth is 8 or 9 fathoms, until it increases and there is plenty of sea. Then he has come out from Qafāṣī. Then turn to the land as before.

f. 57v., l. 6–l. 12

*The voyage from Malacca to Aden.* When you leave Malacca you follow the land to Mount Pulau Bāsalār, and beware of the bank mentioned before. When you see Mount Pulau Bāsalār in the direction E. by S. you turn NW. by W. until you see Pulau Jumar a short distance off. When you have left it behind you, turn due north until you sight the islands of Pulau Sanbilan, and when you come to these you turn for a little NNW. to Pulau Batagh;<sup>120</sup> and from there you travel W. by N., to the islands of Nāja bārī [Nicobars].

from *Kitāb al-Minhāj al-Fākhīr fī 'Ilm al-Baḥr al-Zākhīr*, MS. 2559

f. 62v., l. 12–f. 63v., l. 3

*Section on the sea routes around Bengal, Siam and Malacca.* [This is roughly the same as the section on f. 21, but the latitudes are given and the spellings of the names differ. *S.ndīb* becomes *S.nd.bu* (and *Fāradīb*, *Fārd.bu*). *Shāti-jām* appears at  $11^{\circ}$  P.S. *Zanjiliya* is at  $10\frac{1}{2}^{\circ}$  P.S. *N.j.rāshī* becomes *B.j.rāṣī* at  $7^{\circ}$  P.S.; *Maṭṭabān*,  $6^{\circ}$ ; *Tawāhī* is *Khōr* [Estuary of] *Tawāhī*,  $5^{\circ}$ ; *Fāli*,  $5^{\circ}$ ; *Buttum Bāshkalā*,  $4^{\circ}$ . The direction from *Fāli* to *Buttum Bāshkalā* has two opinions, one SSE. and the other due south. From *Buttum Bāshkalā* to *Pulau Bāsalār*  $6\frac{1}{2}^{\circ}$  L.B., the direction is SSE. and from *Pulau Bāsalār* to *Singapūr*,  $5^{\circ}$  L.B. is SE.]

*Section on the sea routes of Pahang<sup>121</sup> and China.* The route from *Singapūr* to *Banagh* at  $4^{\circ}$  P.S. is N. by W. and from *Banagh* to *Ṣūrā* at  $4\frac{1}{4}^{\circ}$  P.S., NNW. From *Ṣūrā* to the Gulf of *Kūl*,  $4\frac{1}{2}^{\circ}$  P.S. is NW. by W., and from *Ṣūrā* to *Shahr-i Naw*, [at  $5\frac{1}{2}^{\circ}$ , due north. Then from *Shahr-i Naw* to *Cape Kanbūsā*]<sup>122</sup> at  $5^{\circ}$  P.S., SE. by E. and from *Kanbūsā* to *Shanbā* at  $7^{\circ}$  P.S. NNE. and from *Shanbā* to the Gulf

<sup>120</sup> Penang is meant here. The text has [the island of (Pulau) Perak, or] written above the line.

<sup>121</sup> The only time this word is used. Elsewhere ڤه appears.

<sup>122</sup> The section in brackets is omitted in the text. cf. 21v., l. 10–11.

of Kawshī at 10° P.S. it is NNW. From Shanbā also to Bandar Ayam at 12 $\frac{1}{4}$ ° P.S. it is NNE. and from Ayam to Bāb-i Šin on the coast at 17 $\frac{1}{2}$ ° P.S. it is NE. From Bāb-i Šin the land turns south towards SE. by E. to the region of 6° P.S. and then turns again to the north to the region of Yājūj and Mājūj and they are on the limit of the inhabitable world on the east and the north.

f. 66v., l. 5-f. 72r., l. 2

[This section deals with place names in order of latitudes from the north towards the equator. The following places are mentioned in South-East Asia.]

Latitudes according to the Pole Star; at 7 $\frac{1}{4}$ °, Lāmuri Kohneh on the eastern coast [of the Bay of Bengal]; at 7°, Shanbā in China, Najirāshī on the eastern coast; at 6 $\frac{3}{4}$ °, Talālī on the eastern coast and the atoll Rāmankūta seawards of it; at 6 $\frac{1}{2}$ °, the Gulf of Asīyah, on the eastern coast, the island of [Fi] Farsawā,<sup>123</sup> from the islands off Siam; at 6 $\frac{1}{4}$ °, the southern end of the Gulf of Asīyah that is the estuary of Daḥūn; at 6°, Lajhūr in China, Martābān, the two islands of Tarakī and Farsawā;<sup>124</sup> (at 5 $\frac{3}{4}$ °, Kārādiwa on the eastern coast); at 5 $\frac{1}{2}$ ° Gulf of Balang on the eastern coast, the northern point of Andamān, where Fāl Andamān begins on the north; at 5 $\frac{1}{4}$ °, the island of Muk, Andamān al-Kabīr in the Andamans; at 5°, Cape Kanbūsa in China, the Estuary of Tawāhī on the E. coast and seawards of it the island of Falī, Andamān al-Kabīr; at 4 $\frac{3}{4}$ °, Island of Nīlī on the E. coast, Andamān al-Kabīr; at 4 $\frac{1}{2}$ °, Estuary of Markhī on the E. coast, and the island of Lawāmand, the southern end of Andamān al-Kabīr; at 4 $\frac{1}{4}$ °, Awzārmanda, the northern point of Andamān al-Šaghīr; at 4°, Banagh in China, the estuary of Malakī which is Tanāsarī, the islands of Buttum Bāshkalā, Andamān al-Šaghīr; at 3 $\frac{3}{4}$ °, the island of Shayān of the islands of Tākwā, Andamān al-Šaghīr; at 3 $\frac{1}{2}$ °, Pulau Lanbī of the islands of Tākwā, the southern point of Andamān al-Šaghīr; at 3 $\frac{1}{4}$ °, the islands of Kōshek Lanbī of Tākwā, the islands of Wījī Andarāwī (part of the Nicobars);<sup>125</sup> at 3°, Singūrā in China, the port of Qrā on the east coast with the islands of Tanakūlam part of the islands of Tākwā, the strait of Furunshīr in (the Nicobars);<sup>126</sup> at 2 $\frac{3}{4}$ °, Island of Pulau Lantā, the island of Karī Nāja bārī;<sup>127</sup> at 2 $\frac{1}{2}$ °, Island of Kalāri in the islands of Tākwā, the islands of Pattik-Malay in the Nicobars;

<sup>123</sup> فوسوا in the text, but this is obviously the في فوسوا which occurs earlier in the text.

<sup>124</sup> The text has تركي and no "and" between the names.

<sup>125</sup> In the margin. The text has من اللامند which has been deleted.

<sup>126</sup> فور شير Fūr shīr; جزر نوح ناري is in the margin and اللامند is deleted in the text.

<sup>127</sup> كسرى only in the Muḥīf.

at 2 $\frac{1}{4}$ °, Pulau Ayam in the islands of Tākwā, Barī Nāja bārī; at 2°, Langashukā at the extremity of the coast of China, the port of Trang, the islands of Pulau Sanbilan Siām, the island of Manjal Fūla in the Nicobars; at 1 $\frac{3}{4}$ °, the islands of Janūb [Southern] Lantā, the north of the island of Sarjal in the Nicobars; at 1 $\frac{1}{2}$ °, Island of Butang the last of the islands of Tākwā to the south, Karam the southern part of Sarjal in the Nicobars; at 1 $\frac{1}{4}$ °, Lakāwī, the great strait which is between the Nicobars and the island of Jāmis Fūla.

Latitudes according to the Little Bear: at 8° or 1° P.S., Kalāndan on the coast of China, Kēdā, the island of Perak, the islands of Mās Fūla and Jāmis Fūla with the north-west point of the island of Sumatra; at 7 $\frac{3}{4}$ °, the port of Krā, with the island of Penang,<sup>128</sup> the port of Pēdūr in Sumatra;<sup>129</sup> at 7 $\frac{1}{2}$ °, the islands of Dingding and the island of Tanbūrak, the port of Sumatra, Mākūpāng on its west coast and the two islands of Andrasābūr west of Mākūpāng; at 7 $\frac{1}{4}$ °, Pulau Sanbilan Malacca; at 7°, Kelang,<sup>130</sup> Madyanā on the east coast of Sumatra, the port of Shūshū on the west coast, the islands of Manqāmārūs to the west; at 6 $\frac{3}{4}$ °, the Gulf [?] of Qafāšī, the island of Jumar on the east coast of Sumatra; at 6 $\frac{1}{2}$ °, Pulau Bāsalār, the port of 'Arūh on the east coast of Sumatra, and the port of Sinkel on the west coast, the islands of Pulau Lumbū, Pulau Lū[lū]<sup>131</sup> and Talājih west of Sumatra; at 6 $\frac{1}{4}$ °, Sanyā Ūsang; at 6°, Malacca, the port of Rokan, Fanšūr, the island of Mārūs also called Pulau Bānyaq, west of Sumatra; at 5 $\frac{3}{4}$ °, the island of Karīmun; at 5 $\frac{1}{2}$ °, Lākanjī; at 5 $\frac{1}{4}$ °, Kālang; at 5°, Singapūrā at the southern extremity of Siam, Indragīrī on the east coast of Sumatra, Pariāman on the west coast of Sumatra, at 4°, Palibang on the east coast of Sumatra, Indrapūrā on the west coast; at 3°, the strait of Sunda bārī; at 2 $\frac{1}{2}$ °, the northern point of Jāwa where is the port of Sunda; at 2°, the port of Lāsem on the east [sic] coast of Jāwa, Shūnda on the west [sic] coast; at 1°, Tūban on the east coast of Jāwa, the island of Bālī on the west.

Latitudes according to the Great Bear; at 12°, Surabāya on the east coast of Jāwa, Shūmbaba Šandal west of Jāwa; at 11°, the south of the island of Jāwa that is Shāndī; from 10° to 6°, the islands of Timor.

f. 76v., l. 2-f. 80r., l. 10

Section on the Andamān and the Nicobar islands. [This section too

<sup>128</sup> فلونينج is unpointed and is telescoped, but Penang is definitely meant here.

<sup>129</sup> فيندر elsewhere فيندر.

<sup>130</sup> كلنج for كنج.

<sup>131</sup> فلو لول elsewhere فلو لول.

is almost a repeat of that beginning on f. 25v. but a few spellings differ. In addition ff. 76v., l. 15–77r., l. 2 add an important passage which has obviously been omitted from the earlier section]. And then after (them?),<sup>132</sup> the island of Karī Nāja Bārī on the south is the islands [sic] of Pattik-Malay at 2½° P.S. and after them are the islands of Barī [?] Nāja Bārī at 2¼° P.S. and east of these islands three *zām* away is the island of Kashfulā Andarāwī and after Barī Nāja Bārī on the south is the island of Manjal Fūla at 2° P.S. [etc.]. [Another addition to this section is the sentence right at the end.] East of Jāmis Fūla are the islands of Mās Fūla and they are large and small islands off the north west cape of the island of Sumatra.

Know that the islands of Nicobar all have straits clear of dangers, whichever place you enter you can come straight out. And the route down the outer coasts of these islands on the west; from the northern point of Andamān al-Kabīr at 5½° P.S. is due south to 5° P.S., and then from 5° to Jāmis Fūla, and to Mākū[pāng] also is SSE.

*Section on the islands of Tākwā*, which are off the Siamese coast. They are large islands, the first of them being at 5° P.S., for it is certain that Tākwā does not begin at 4° or less but at 5° P.S., and the word Tākwā applies [to all of] them.

At 5° is the island of Fālī, or Falī,<sup>133</sup> then after that to the south, that is in the line [of islands] nearest the sea among the well-known islands, is Falī Kabar [Falī Karā] at 4½° P.S. Next to the south are the islands of Buttum Bāshkalā at 4°, and after them to the south is the island of Shayān, at 3¾°. Next to the south is the island of Kīnī<sup>134</sup> at 3½°, which is a large island; and after that is the island of Tanakūlam at 3°. Next is the small inhabited island called Pulau Lantā at 2¾° [then the following islands one after another to the south; Pulau Kahādī<sup>135</sup> [Pulau Kalārī], 2½°; Pulau Ayam, 2¼°; many islands, 2°], and to the west of them the islands of Pulau Sanbīlan Siām. Then after them islands and more islands until you come to Pulau Butang. This is a large island at 1½° P.S., and it is the last of the islands of Tākwā to the south. Now after them are the islands which you follow when you are close to the mainland—many islands such as the islands of Lakāwī, which are nearer the mainland than Pulau Butang. After Penang in the south are two large, long islands called Dingding, and after these you reach the islands of

<sup>132</sup> The “them” is superfluous as the text should read “after Karī Nāja Bārī”.

<sup>133</sup> The text has “فلي” sometimes called “فلي”.

<sup>134</sup> كيني for the كيني of the earlier section.

<sup>135</sup> The text has a standard formula here, so the translation has been abbreviated. The “many islands” cannot be identified.

Pulau Sanbīlan Malacca and the island of Tanbūrak, seawards of Dingding. The islands of Pulau Sanbīlan are at the northern end of a bay, just as Pulau Bāsālār is at the southern end of the [same] bay. The islands of Tākwā are beyond number in three rows, and they are free from all dangers,<sup>136</sup> except that there are among them certain areas impassable to shipping. As for the route through them, if you leave all of them on the left, the route from Martābān to the island of Fālī is due south; then from Fālī all of it is SSE. to Pulau Bāsālār, following the decision of the bearing only, or else, it is also due south from Fālī to Buttum, then this is obvious.

*Section on the island of Sumatra*. Sumatra begins in the north-west at a little less than 8° L.B. Jāmis Fūla is a little to the west of this cape. Near this cape, i.e. the cape of Sumatra are the islands of Mās Fūla which are both large and small. As for the latitude of the southern extremity of the island of Sumatra, there are several opinions of which I have made a note in the ‘*Umda*’.<sup>137</sup> The best opinion is that it ends at 3½° L.B. The route of the west coast is from Jāmis Fūla to Mākūpāng, SSE.; from Mākūpāng to Fanšūr, SE. by S., and from Fanšūr to the southern extremity of the island, SE. The route of the east coast is from Jāmis Fūla to Mās Fūla, due east; from Mās Fūla to the port of Sumatra E. by S.; from Sumatra to Pulau Berhala, SE. by E.; there the latitude is 7° L.B.; from Pulau Berhala to the island of Jumar is also SE. by E. This is the route well out to sea. The route along the coast is as follows: from Sumatra to ‘Ārūh at 6½° L.B. is SE.; from ‘Ārūh to around Rokan, E. by S. at 6¼° L.B. Leaving the neighbourhood of Rokan the land falls away almost due south and from near here to the southern extremity of the island, some say one thing and some say another.

The most well-known ports of the west coast are: the port of Fanšūr,<sup>138</sup> the port for *Riyāhī* camphor,<sup>139</sup> gold and other products; the port of Pariāman, is also known among men as Manaqābūh, this is the port for gold dust<sup>140</sup> and aloeswood; the port of Indrapūrā, which is no longer so well-known, but was famous once. The ports of the east coast are: the port of Pēdir, under the mountain of Lāmūrī, the port for pepper; the port of Sumatra the most famous of all the ports of the island. This is a large town. It is the port for pepper, silk and gold and is a very flourishing port; the port of ‘Ārūh, which is a small port; the port of Rokan, which is a small

<sup>136</sup> اوساح lit. “dirty”, “unhealthy places”. See my *Arab navigation*, p. 279.

<sup>137</sup> The previous text, ff. 21r.–57v.

<sup>138</sup> The text has منصور for منصور and in three other places in this passage.

<sup>139</sup> The text has الكافور احي but see pp. 100, 246.

<sup>140</sup> ذهب التبر.

port; the port of Palibang, which is also a small one. Among these small ports are the ports for benjoin<sup>141</sup> and other products of these regions. As for the latitudes of these ports, we have mentioned before in the chapter on latitudes, so there is no need to repeat them.

*Note.* Know that off the coast of the island of Sumatra, which faces the ocean, the west coast, there are a group of islands. The route [among them is as follows] from Jāmis Fula to the islands of Andrasābūr which are the first from the north SSW., these are opposite Mākūpāng and the distance between them is 8 *zām*. Next to the south is a large island of numerous estuaries and harbours called Manqāmārūs at 6 $\frac{3}{4}$ ° L.B. This is the country from which the Batak originally came. They are the cannibals—we ask God for their pardon and their salvation. Between this island and that of Sumatra is also 8 *zām*. If you go from this island E. by S., you arrive at a group of islands among which are those called Pulau Bābī, Pulau Lunbū, Pulau Lūlū and the island of Talājih and some deserted banks near the mainland. On the mainland is the port of Sinkel. These are all at 6 $\frac{1}{2}$ ° L.B. In this place is a place of reefs. After the islands to the south is an island opposite Fanšūr and between them are 8 *zām*, called Manqārūs.<sup>142</sup>

Know that the route from the island of Manqārūs to Fanšūr is ESE., but beware of bad spots in these places.

Among the known islands is the island of Nihā opposite the port of Fanšūr; the island of Bāsālār which is seawards but to the south of Fanšūr. There is found in this last island a stream of water which never ceases. How many are the islands not mentioned here, and the reefs and rocks!

*Section on the island of Jāwa.* According to the most precise, the first part of it in the north is the mountain of Sunda at 2 $\frac{1}{2}$ ° L.B. and the most southerly part is called Shāndī at 11° G.B. As for the direction of the coast, it is said to be SE. on both sides of it, for these are the routes of the *takang* who is the same at the *rubbān* in the north.<sup>143</sup> And as for the ports before mentioned; the port of Jarshīk, this is to the east of the island;<sup>144</sup> the port of Surabāya, and this is also to the east of the island; the port of Tūban, and this is

<sup>141</sup> الجاوى. See note 111, p. 216.

<sup>142</sup> ميقاماروس. This is obviously an error for ميقاماروس, the island of Simalur. Nias is obviously meant here, although the course from Simalur is ESE. with bad places.

<sup>143</sup> This passage is unpointed in the text, because the copyist could not understand it. It is obviously a phrase similar to that on f. 56r., l. 13 in the *Fawā'id*. See p. 210 and note 76.

<sup>144</sup> That is on the north coast.

also east at 1 $\frac{1}{4}$ ° L.B. The latitudes of the above-mentioned ports have been mentioned above. The coast which faces the ocean that is the west coast has no well-known ports in it, but has the island of Bāli.

*Section on some of the islands of the South East.* Among them are the island [sic] of Timor and they are many islands in the south-east of Jāwa and they are islands where sandalwood is found. East of Timor are the islands of Bāndan and they are the islands where nutmeg<sup>145</sup> and mace are found. The islands of Cloves are called Malūkū and are four islands. As for the latitudes of these above mentioned islands, they are certainly unknown, although people of some knowledge have suggested their latitudes and I have mentioned them in the *'Umda* as I was told. And among the well-known islands is the island of Likīwā which is known by some people as al-Ghūr, and the island of Jilolo, which is a large island which there is no other like [beyond] it,<sup>146</sup> and some say that its length is a sea journey of two months; and the island of Fariyūq, which is also one of the large islands and which is south of the ports of China. And among the well-known ones are the islands of Barānī [Brunei]<sup>147</sup> and the islands of Maqāsar.<sup>148</sup> How many are the other islands!

f. 82r., l. 5–6

Between the port of Sumatra and the islands of Ding[din]g is 13 *zām*.

f. 88v., l. 6–f. 90v., l. 6

[From] *The voyage from Diu to Malacca* ... and when you have passed it [Sarjal], take the direction ESE. for four *zām* then take SE. by E. until the Little Bear appears at 8°; then turn due east. Then your mind should be on the current. You will come in sight of land at first at the island of Pulau Perak. This is a small island, the distance between it and the mainland being 8 *zām*. Then from Perak you should continue due east until the island of Pulau Penang appears, if the current (tide)<sup>149</sup> is not running north. And when you see the current, then turn from here, ESE., and you will come to Penang, which is a long island, both sides of which slope steeply and appear black from a distance. When you come near to it, steer SSE.

<sup>145</sup> جوز الطيب i.e. nuts. Ibn al-Baiṭār calls nutmeg جوز بوا and جوز الطيب.

<sup>146</sup> Or "of which no one else knows" or even, "of which the end is not known".

<sup>147</sup> برني elsewhere.

<sup>148</sup> مقاصر for معاصر also occurs.

<sup>149</sup> المد this usually means the ebb-tide or low tide, but in the navigators' texts almost always means "the current". See my *Arab navigation*, p. 284.

to the island of Pulau Sanbilan, which means the Nine Islands. Now there will appear to you what seem to be two mountains on the mainland resembling Pulau Penang, and you will think them two islands, and they are between Pulau Penang and Dingding. These mountains are called Pān Kūrā, and after these two mountains you will come to Dingding, which are two large, long islands sloping steeply. To the seawards of them is the island of Tanbūrak, and this is a small round island. Now Pulau Penang and Dingding are both near the mainland in shallow water. Then after Ding[din] come the islands of Sanbilan, islands of tall mountains, but some of them are small. When you come to them you can take up water and continue the journey. Then set course from them due south for 6 *zām* and you will come to the island of Pulau Jumar. Between Sanbilan and Jumar the depth is 35 fathoms until you approach Jumar; then the water increases, and the depth increases to 40 or 50 fathoms more or less. When you are near Jumar you can neither see the mainland of the Peninsula, nor that of Sumatra. But in clear weather you can see the mountains of the Siamese mainland, that is the "Tin Mountains". When you approach Jumar turn SE. by E. for one *zām*; then take ESE. Now, due SE. from the island of Jumar there is a bank, over which the waves break, but you continue on your way ESE., the depth decreasing until it reaches 18 fathoms or thereabouts. Continuing ESE., when Jumar appears level with the surface of the sea, then you should see directly in front the mountain of Pulau Bāsalār. Still continue ESE. and the depth will be about 16 or 17 fathoms. If it decreases to 15, incline to the right, but if it increases to 18 then incline to the left; you should make this a habit. Now beware of the current, whenever it is with you and the wind is negligible, then let down the anchor lest the current carry you into shallow water. When you are near Pulau Bāsalār, the mainland which is to the south of it will be visible. Then examine the shallows until it is 8 fathoms, then 7, then 6, and when the depth remains at 9 fathoms or about that, this is the bank of Qafāṣī, which are reefs. When you are on this route continue in the same direction which you have followed since Jumar, keeping the ship's boat before you. Keep taking the depth, I mean when you are in this shallow place with the depth at about 7 or 8 fathoms. You should continue on the above mentioned course, and after these shallows the depth will increase to 15 and 20 and 25.

Now you have arrived and are near to the coast, so take a course close to the mainland to the SE. The depth will be about 25 fathoms and in an hour 30 fathoms, then 25, and in another hour 20 fathoms, increasing and decreasing at every sounding by about 5 or 6 fathoms.

Notice that the sea bottom rises and falls. Keep on this course and when the tide turns back upon you and the wind is negligible then drop anchor. So continue until you come to Malacca. In front of it you will see the islands of Pulau Sabtā [?] and the island of Ubi [?]. Boats will then come out to you. Prepare yourself for entering the harbour.

*The journey from Malacca to al-Dib [the Maldives].*<sup>150</sup> When you leave the harbour ride straight out to sea until the depth is 20 or 25 fathoms, for this is best and most possible (?). Then take the direction NW. and the depth 25 fathoms or thereabouts until you see Pulau Bāsalār in the NNE. Then take WNW. and the depth will be between 35 and 20 fathoms. Continue thus until the depth decreases to 15 and then to 7 or 8. You will now find yourself over the above mentioned bank. Continue straight ahead in the same direction with the ship's boat before you until the depth increases again to about 15, and then go on till you sight Pulau Jumar when the depth will be about 30 to 40 fathoms. Now is the time to turn due north until you come to the islands of Pulau Sanbilan, and from Pulau Sanbilan take the direction NNW. until Pulau Penang appears. Now take WNW. until you reach Pulau Perak, and from Perak take W. by N. for a while and then due west until the mountains of Sumatra appear, like the mountains of Jā'iza<sup>151</sup> and others of these mountains. Then continue on your course, due west until you see the islands of Mās Fula straight ahead or nearly so. Then its summit should be in front but leave them to the left; and when you have passed them the islands of Jāmis Fula will appear west of them. Then continue on your course until you see the island of Ceylon. [etc.]

*f. 90v., l. 9–f. 92r. l. 10*

*The journey from Diu to Faṣūr.*<sup>152</sup> Sight land first at Jāmis Fula at 8° L.B. or a little less, and set course SSE. and when you have come to Mākūpāng, then continue on your course from Mākūpāng, SSE. changing towards SE. by S. after some hours until you come to Sūsū. There the Little Bear is at 7°. A landmark [for Sūsū] is many mountains intermingled one with another, and still more. Now take notice of the mountain which is south-south-east of you, and whenever you come opposite this place, take the depth; it will be 20

<sup>150</sup> This identification has been made earlier. See note 19, p. 50.

<sup>151</sup> Reading جائزة. However, the text has حائرة and this may not be a proper name; but may read, "until the mountains of Sumatra appear as isolated (or, elongated) mountains. See also p. 247.

<sup>152</sup> In this section the text has منصور throughout.

fathoms. The course is still SSE., and the lookout should be at the masthead, looking out to sea for there is a rock with some trees on it looking like a ship's mast. This is left on your right out to sea, and it is opposite the estuary of Sinkel. Take special care in this place. Draw near to the mainland, taking care because of dangerous places on your right which have rocks with trees on them. Do not go too close to the coast in passing for quite close there is also a dangerous place, but go fairly near. For being near is safer than keeping distant, because of the many dangerous places out to sea. When you have left the rocks with the trees on them behind, turn due south and stand out to sea because before you there is a cape jutting out to sea, which has dangers to the seawards of it. Then continue on your course due south until you have left that behind; and south of this cape is an island. From here turn along the coast; that is SE. by S., but only after the islands which you meet on your left, the first of which is the above mentioned one under the cape. You should follow the coast southwards, and you pass an island [island after island] until you come to the seventh island. The port of Faṣūr is below it and you will see the island of Bangā[la?]<sup>153</sup> in the sea above Faṣūr. When the land comes near, enter the harbour. Know that after the mountains of Sūsū, there are no mountains to the south along the coast as far as Faṣūr,<sup>154</sup> and the same applies further to the south. When you come out from it to make the return journey, turn along the coast, following the above description until you come to Mākūpāng. Then set out to sea and set course for Ceylon and the Maldives.

*The journey from Marṭabān and Tenasserim.*<sup>155</sup> When you leave Ceylon, set course ENE. until the Pole Star is at  $2\frac{3}{4}^{\circ}$ . You do not sight any islands on this course. Then you go due east, and you will sight the island of Karī Nāja bārī. Leave it on your right, and pass to the north of it and there is a large shoal, 5 *zām* away from it. When you have passed the island, and if you are bound for Marṭabān, turn NE. by E., and then you will come to the island of Fāli. Beware of the tide, if you are to the north when first sighting land. When you reach Fāli or above it, and when you come to  $5^{\circ}$  P.S. or  $5\frac{1}{2}^{\circ}$  P.S. and you have not sighted a thing, then turn due east till the mainland appears. Come near to it and turn along it till you come to Marṭabān.

<sup>153</sup> بنجا له; but the له appears to have been deleted.

<sup>154</sup> بر بلا حمال lit. "a coast without mountains". The coastal plain actually starts near Bakongan, seventy miles south of Susu.

<sup>155</sup> The title says, "From Marṭabān and Tenasserim", but the text describes a voyage from Ceylon to Marṭabān and Tenasserim.

But if you wish to go to Tenasserim, take ENE. from the Nicobars, and you will come to the island of Fāli [Karā].<sup>156</sup> Then turn from it to ESE. to the estuary of Markhī. But if you come to Buttum Bāshkalā, turn due east to the estuary of Malakī. You will find innumerable islands between you and the estuary and they are surrounded by danger spots.<sup>157</sup> It is the same from the island of Fāli to the Markhī estuary, there are numerous islands but these are larger.

As for Marṭabān, whenever the islands of Fāli become visible, or some land above them, draw near to the mainland and turn along it, and the depth will be about 12 fathoms. Here near the mainland is the strongest tide [current] it is possible to have. This is best [?].

*Remark.* Tenasserim has two harbours. One of them is Malakī, which is at  $4^{\circ}$  P.S. and the other Markhī, which is at  $4\frac{1}{2}^{\circ}$  P.S. and near it [sic] on the mainland is Tenasserim. Thus is Pegu [it also has two harbours]. One of its harbours is Marṭabān and the other is Kasmā, which is in Najirāshī. It is a large estuary whose most southerly point is Najirāshī, and near it on the mainland is Pegu similar to Tenasserim. From Tenasserim is an estuary which never has rain, being always dry and the people of Tenasserim travel in it to Shahr-i Naw. So do the Arabs travel to Shahr-i Naw.

<sup>156</sup> When sailing for Martaban, you leave Car Nicobar, and sail NE. by E. and reach Fāli. If therefore, when you head for Tenasserim from the Nicobars, ENE., it is unlikely that you will reach the same Fāli. Presumably the other island, Fāli Karā, must be meant here.

<sup>157</sup> Reading وهو نطاف من الأوساح but it is possible that وهو نطاف من الأوساح is meant; i.e. free from danger spots.